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ABSTRACT

Intended for rural development practitioners and extension educators, this publication examines trends and issues in the revitalization of rural America. Chapter 1 defines community economic vitality as the capacity to ensure a flow of jobs and income over time; focuses attention on the realities of competition between communities and the essential role of state government; and argues that vitality requires equal attention to supply, demand, and institutional factors. Chapters 2-5: (1) describe the links between agriculture and other rural economic areas; (2) assess the outcomes of 25 years of rural industrialization; (3) discuss the effects of global economic restructuring on rural industrialization; and (4) document the recent growth of service industries in rural areas. Chapters 6-10: (1) question the utility of right-to-work legislation as a strategy of rural job creation; (2) support the argument that passive income (cash transfers and investment earnings) is an efficient instrument for economic development; (3) relate transfer payments to rising local wages in the 1960's but not the 1970's; (4) associate regional convergence of educational levels with convergence of southern and nonsouthern poverty rates; and (5) outline the distribution within the rural community of income gains in the 1960's and 1970's. Authors include: Gene F. Summers, Leonard E. Bloomquist, Thomas A. Hirschl, Ron E. Shaffer, Francine Horton, Glen C. Pulver, Priscilla Salant, and William Saupe. This document contains 82 references and 12 figures and tables. (SV)

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North Central Regional Center
for Rural Development

Community Economic Vitality

Community Economic Vitality: Major Trends and Selected Issues

by

Gene F. Summers
Leonard E. Bloomquist
Thomas A. Hirschl
Ron E. Shaffer

with the collaboration of
Francine Horton
Glen C. Pulver
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William Saupe

North Central Regional Center for Rural Development

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Preface

This publication is intended for rural development practitioners and Extension educators. If some academic colleagues find teaching and research value in it, we will be delighted. And if policymakers or program administrators find it useful, we will be pleased. This set of materials was prepared to provide information on community economic vitality trends and issues for our colleagues whose daily responsibilities take them into small cities and villages across rural America where they provide information, guidance, and support to communities seeking to strengthen their hold on the future.

Revitalizing rural America is the challenge for the 1990s. Reference to the many charts, graphs, and statistics found in report after report paint a rather depressing picture of life in rural America. Hard work and skilled use of natural resources no longer guarantee economic success. Community control over local destiny has been diminished. Service demands on local governments are growing as revenues decline. The population turnaround of the 1970s has turned around again and many communities face loss of population. The infrastructure of many communities is approaching a state of serious deterioration. However, we believe the future is not hopeless; rather it presents us with an exciting challenge and an opportunity to reconstruct rural America in ways that are consistent with the realities of a changed world.

When faced with turbulent times in which old ways of doing things seem not to work very well, if at all, it is wise to step back and reassess the principles that guide our practices. That is what we are attempting to do; this book is a record of our tentative conclusions.

We present our concept of what is involved in maintaining a community's ability to reproduce itself: its capacity to ensure a flow of jobs and income over time. Emphasis is on the fundamentals we believe are essential and often overlooked or misunderstood. In particular, we have focused attention on the reality of competition *between* communities and the essential role played by the local state through the apparatus of government. We have expanded the concept of the export base in ways that are more consistent with today's economic realities by arguing that any economic activity that brings money into a community is a part of its export base. We further argue that vitality requires equal attention to supply, demand, and institutional factors. Too often only one of them is considered as communities plan economic development strategy.

We examine major economic trends in rural America in a fashion that builds on our concept of community economic vitality. Therefore, we have avoided reproducing the charts and graphs of trends that can be found in numerous statistical reports. Chapter 2, by Shaffer, Salant, and Saupe, states how agriculture and other aspects of rural economies are linked together. Agriculture does not stand alone and no longer dominates other sectors of the rural economy as it once did. Instead, it is one component of community economic vitality. It

also sets the stage for an understanding of two major rural economic development efforts that are intended to provide alternatives to agriculture as an economic base.

The first of these is rural industrialization, which was adopted as a formal policy by the federal government during the 1960s and was seen as a means of providing jobs to rural workers and otherwise stimulating economic well-being in rural communities. Chapter 3 provides an assessment based on 25 years' experience with this policy. It is clear that the outcomes have not been entirely as expected. In addition to local miscalculations of benefits and costs of rural industrialization, there is a global economic restructuring under way that continues to affect the outcomes of rural industrialization. In Chapter 4 Horton describes these changes and provides a background for the current debate concerning the possible need for a national industrial policy. This is an important issue because no matter how it is resolved the outcome will have an impact on rural community economic vitality.

The second alternative is to encourage service producing industries to locate and to expand in rural communities. Chapter 5 by Pulver provides an introduction to the logic of service industries as development instruments and documents recent trends in the growth of service producing industries in rural America.

The latter chapters deal with selected issues associated with job creation and income generation efforts within the context of the community economic vitality concept and the trends described in preceding chapters. Research for this study was funded by the North Central Regional Center for Rural Development under the terms of a Memorandum of Understanding with the College of Agricultural and Life Sciences of the University of Wisconsin-Madison and performed under the supervision of Gene Summers, Department of Rural Sociology.

To provide a common basis for these research activities, a probability sample was taken of all contiguous U.S. counties with nonmetropolitan status in 1950. This resulted in a sample of 275 counties. Data were assembled for each county from a variety of secondary sources, mostly censuses of the Bureau of the Census that included population characteristics and economic activities.

The first of these select issues is right-to-work legislation and its impact on job creation. We chose this issue for analysis because it is one of the most salient instruments in the competition between communities and between states. It has been argued that communities in right-to-work states have a comparative advantage in competition for jobs. The evidence presented by Hirschl and Summers in Chapter 6, based on 30 years' experience, raises serious questions about the utility of this institutional innovation.

The second issue addressed is whether passive income (cash transfers and investment earnings) can be useful as a tool for community economic development. Given an expanded concept of economic base, Summers and Hirschl present data in Chapter 7 that support the argument that passive income is an

efficient instrument for economic development. Several suggestions are offered as to how this income source might be incorporated into a general development strategy.

Even though passive income is capable of generating jobs locally, there is the question of whether these are good paying jobs for skilled workers or merely minimum wage, low skilled, part time jobs in the service sector. Hirschl addresses this issue in Chapter 8 by examining the association of amounts of transfer payments received by rural counties with local wage rates. It appears that, during the 1960s, transfer payments were associated with rising local wage rates, but during the 1970s this association reversed itself. Clearly, the issue is still unresolved, but its importance increases as passive incomes continue to gain as a proportion of total personal income in rural communities.

The last two chapters, by Bloomquist and Summers, deal with the issues of distribution income gains in rural communities. Many rural communities experienced employment and income growth during the 1960s and 1970s, but did the increases in aggregate (or per capita) income benefit all community residents equally? The results of the analysis allow for arguments strongly in favor of the need to enhance the human resource base of rural communities since communities with better educated, more skilled workers are better able to translate growth into greater income equality.

Stimulating and maintaining economic vitality is an enormous challenge for rural communities as they face the 21st century. Finding ways of maintaining employment and income, providing essential services, and enhancing human resources will surely require creative and imaginative leadership. It also will require us to continually understand the economic, social, and political landscape in order to avoid the pitfalls of myths, of charting courses using outmoded maps, and of missing opportunities because of lack of information. We hope this book provides some assistance in mapping realities and in charting strategies that lead to community economic vitality.

Gene F. Summers

Chapter 1
Community Economic Vitality

RON SHAFFER and GENE F. SUMMERS

The following discussion assumes the existence of a market economy. While we are accustomed to thinking about private sector firms operating in a market characterized by competition, we are frequently oblivious to the fact that communities also compete. And it is the local state, or all sub-national government entities, that represent the "community interest" in such competition. There are conflicting interest groups in every community based on class, ethnic group, race, age, religion, education, occupation, or other social categories. Superimposed on them is the local state, whose authority and power coincide with the territorial perimeter of the local system and whose primary instrument is the apparatus of local government. The future well-being of the community depends primarily on actions of the local state, although not exclusively so. At times, local state policies and actions may coincide with other interest groups, but that occurrence is coincidental because the ultimate interest of the local state must be the continued existence of the social system occupying its territory.

In competition with other local states there are at least three significant dimensions of comparisons: economic, social, and political. While they are not empirically independent, they are analytically separable. This discussion focuses on the economic competition among communities, made dynamic largely by those representing the local state. Firms compete in the private economy and their managers only incidentally consider community interests and competition among local states. In particular, the private sector is only marginally interested in territorial or spatial dimensions of competition. The distinction between these areas of competition is crucial because it allows us to recognize the basis for the sometimes alarming lack of common interests between local officials and local business owners and managers.

The explicit presumption of the existence of a market economy involving both private and public sectors does not constitute a normative statement. It is descriptive and analytical. Indeed, it is anticipated that this discussion will stimulate a lively exchange of ideas regarding potential alternatives.

Vitality is the ability to survive, to persist in generating desired outcomes. It is a very broad normative and functional concept. It is possible to know what factors influence survival, system reproduction, and continued creation of desired products of systems only by observing successes and failures from which inferences may be made.

In addition to the subjective and *ex ante* nature of vitality, there is also a competitive aspect to it, observable only through comparison. Usually, perhaps always, there is competition among systems—whether individuals, groups, communities, or other social formations—to at least maintain if not improve their relative standing. Thus, it is important not to be lured into false inferences

when indicators of output are rising. Other units in the competition may be climbing even more rapidly. Consequently, a system that is doing a better job of producing its outputs today than it did yesterday may have nevertheless lost its ability to survive.

Community economic vitality is the capacity of a local social system to continue generating income and employment in order to maintain, if not improve, its relative economic position. Past observations of growing, stable, and declining communities lead to the conclusion that institutional apparatus is critical. Vital communities possess social constructions, with underlying assumptions, encouraging and permitting the orderly and efficient use of economic resources, insuring their maintenance, and allowing adaptation to changes in the environment.

Institutions are basic to any form of social interaction but are usually not recognized, except when changes are proposed or when they are not performing satisfactorily. The focus of this discussion is restricted to those institutions facilitating or impeding community economic vitality.

Institutions are the rights and obligations or social, political, and legal rules that govern all those aspects of use of a community's resources (production), exchange, and distribution of rewards (Davis and North 1971). Institutions are the traditions, the customs, the attitudes, the governmental arrangements that set the framework in which economic units (households, businesses) make consumption and production decisions. Institutions are concerned with decisions and with decision making.

Community economic vitality is a long run concept that requires more than just the efficient use of resources in the short run to generate profits, jobs, and income for current community residents. Any discussion of vitality must recognize the longer run concepts of maintenance of the community through time and the adaptability of the community to changing conditions both within and outside of itself. A theme that also must be part of the concept is that outcomes of an economic system must approach some form of equity among residents of a community, among communities, and over time. This elusive concept must be high on the list of important elements of community vitality. Community economic vitality requires recognition of efficient use of economic resources, maintenance of resources, and flexibility to changing conditions.

Orderly and Efficient Use of Resources

When a community is perceived as an economic decision making unit attempting to maximize profits, utility, or reward from the use of its resources, the parallelism between theory of the firm, resource owners and consumer behavior, and community economic vitality becomes apparent. A community's output (employment or income) is a function of what it can supply and what is being demanded. What it can supply is derived from the types of resources the community has. How many resources? How are these resources used? Demand incorporates products that are created and their relative value in the mar-

ketplace. How much can be sold? What is the price that they can be sold for? Where are markets located? How are markets changing? Acceptable economic actions and the manner in which economic decisions are made are crucial elements that set the framework for demand and supply decisions. Furthermore, these actions occur among spatially separated economic units. Demand and supply are important factors to examine in relation to the vitality of any community.

Supply and Vitality

The supply aspect of vitality emphasizes the importance of capital, labor, and other factors of production in creating output and income. The supply approach suggests that growth in output, employment, or income for communities is precipitated by one or more economic actions regarding resource use. A community can increase its output by increasing its stock of capital through investing local savings or importing capital from other areas, or by shifting capital from less to more productive uses within the community. A community can increase output by increasing its labor force through new entrants to the labor force, through in-migration, by hiring previously unemployed workers, or by shifting labor from less to more productive uses. Finally, a community can adopt new technology that permits increased output or uses unemployed resources.

Two basic assumptions are important: labor and capital resources are mobile among places and uses and technology is distributed instantaneously over space and uniformly over time. A brief review of the first assumption is necessary, but it is more important to focus on technology because of its inherent ability to be disruptive or create new opportunities for existing resources.

Markets bring together demanders and suppliers of products and resources and permit them to negotiate a transaction agreeable to both. However, if they cannot reach an agreement, the market needs to send signals so they will change their behavior. Furthermore, that signal needs to indicate what type of change is needed. Not only must the signal be sent, but the participants within the market must be able to receive, respond, and adjust to that signal in an appropriate fashion. Any economic development or vitality strategy needs to reduce barriers to economic development or imperfections in the market, that is, market failures.

Imperfections in the resource market hamper community economic vitality. A major source of market failure is resource immobility. Immobility of resources among uses and places can prevent the appropriate spatial adjustment of factor and product prices.

There are two forms of resource immobility. When resources fail to perceive and respond to long run economic opportunities or signals from the community, it could be the failure of capital and labor to move into or out of a community toward higher returns. The second form of immobility is resources not being used in their most productive manner, such as when labor or capital are used to produce something that has a lower value to society.

In a dynamic setting, some barriers to the efficient use of resources include lack of entrepreneurship; the high cost of adjustment, such as the cost of creating additional highly skilled labor or sophisticated machinery; uncertainty about governmental fiscal policy and monetary policy or labor skills required; institutional rigidity, such as bureaucratic behavior; a lack of decision making capacity of both institutions and human resources; a lack of key resources or key organizations to support the development process; and a lack of integration or coordination among key parts of the economy or political systems, that is, an adversarial relationship between the public and private sectors.

The spatial diffusion of technology or innovation has a significant impact on differences in vitality among communities. Technological change does not occur at a constant pace, nor is it uniformly adopted over space. The spread of technology is largely a result of social communication and interaction. The adoption of technology is a result of learning, accepting, and making a decision. The noninstantaneous spread of technology reveals a market imperfection preventing every community equal or instantaneous access to the same production processes. The result is that some communities grow more rapidly than others because they are using more advanced technology.

There are a variety of forces retarding the transmission of technology. The first and probably most important reason is differences in the rate at which management accepts and adopts technology. The adoption of new technology usually does not occur immediately on receipt of information. Rather, the manager may require repeated messages about it, coupled with new information about how the technology has performed for similar firms, such as a management strategy to reduce risk.

Second, the transmission costs of technology are not zero. There are costs involved in becoming aware of new technology, figuring out how it can be applied, disrupting production, and training workers in the use of new technology in a particular plant, office, or business.

Third, it takes time to incorporate new technology into the capital stock, depending on whether the new technology requires completely new production processes or requires only minor changes.

Fourth, communities have different industrial sectors, and the rate of technological transformation among industrial sectors varies. Therefore, communities with sectors experiencing rapid technological change will also experience more rapid technological change as a whole.

Fifth, the instantaneous transmission of technology among communities may be hampered by patent agreements, secrecy, and failure of the owners of technology to offer it equitably.

In summary, the economic vitality of a community can be linked to forces that generally can be labeled *supply forces*. Imperfection in the market signals sent and received, along with the nonuniform or noninstantaneous transmission of technology, create differences in expected and actual outcomes. These failures of the market cannot be ignored, but neither should their importance be inflated in a dynamic setting.

Demand and Vitality

The demand aspect of community economic vitality contends that the vigor of a community depends on the development of its export industries. The critical force in the community's economic vitality is demand external to the community, not the community's ability to supply capital, labor, or use technology. The timing and pace of a community's economic vitality is determined by the success of its export sector, the characteristics of the export sector, and the disposition of income received from export sales.

The export sector carries external economic forces into the community Characteristics of the export sector and disposition of its income are the internal dynamics of a community's economy that translate these external forces into community economic vitality. The impact of changes in the export sector on the rest of the community depends on the number and strength of linkages between the export and nonexport sectors referred to as characteristics of the export sector. Furthermore, distribution of income from the export sector and ownership of export sector resources are important elements in translating changes in the export sector into community economic vitality. For example, if the ownership of export base resources is external to the community, then changes in the export sector may have a minimal impact on the community because the income is not reinvested in the community. Likewise, the availability of skills that permit the local labor force to work in the export sector also contribute to the success of translating external demand into local economic change.

The nonexport sector is equally important to community economic vitality because it is the mechanism that captures external economic stimuli. Without this, the local effects of external economic stimulus would be minimal.

The volume of exports from a community can either increase or decrease over time. The increase (decrease) may occur because there has been a rightward (leftward) shift in external demand; the good or service exported has a high (low) income elasticity; there has been an increase (decrease) in income levels in nearby areas; there has been an improved (reduced) comparative advantage in the community, such as altered costs of labor, capital, or changes in technology; or because of the factor endowment of the community, meaning that a depletion of the natural resource base or technological changes have altered input combinations in which this community previously had an advantage. If a community does not adjust to forces that might alter its volume of exports, the community will find itself stranded outside the economic mainstream with a relatively or even absolutely worsening economic position.

In summary, the economic vitality of a community depends on external demand for the community's output. This is a necessary condition, but not sufficient for community economic vitality. The translation of external demand into local economic activity is crucial and leads to a need to examine the institutional dimensions of the community.

Maintenance of Economic Resources

An institutional matrix that ensures orderly and efficient use of economic resources does not, in and of itself, secure the vitality of a community. The long run stability and growth of income and employment require a set of mechanisms to maintain the quantity and quality of local economic resources. Providing necessary institutional arrangements usually involves both private and state economies.

Short run vitality depends largely on the existing export base and mechanisms in place that enable the locality to capture money generated by it. But markets for products and services come and go. Consumer demand today is vastly different from that of 50 or 100 years ago. Therefore, the longevity of any community ultimately depends on its ability to renew its export base; it must have the capacity to invent, innovate, or acquire new exports.

Thompson and Mattila (1968) made this point forcefully when they said, "The local social overhead—infrastructure—that has been amassed is, more than export diversification, the source of local vitality and endurance." A rich infrastructure facilitates the adjustment to supply and demand changes by providing social and economic institutions and physical facilities needed to initiate new enterprises, to transfer capital from old to new uses, and to retain a skilled, healthy, and motivated labor force.

This view is in sharp contrast with the simple export base interpretation that leads many community leaders to "give away the store" in order to attract new export firms. Such a simple export thesis emphasizes the multiplier concept, which is in reality a cash flow model of local economies and ignores the causal mechanisms involved in long term development, namely long run use of community resources. It encourages profit taking rather than development behavior. Community economic vitality requires public and private sector support of a local network of services and facilities to ensure the continued availability of factors of production—especially land, labor, and capital.

Land

Land is the economic resource most controlled by the community. All production occurs somewhere. Communities also occupy space and because of prerogatives of the modern state they have a great deal of control over their territories. Since land is an essential economic resource, its control gives the community—the local state—a substantial ability to direct economic vitality of the community.

It is true, of course, that the local state today has less control over its territory than in the city state of ancient Greece. Likewise, land use powers of the local state vary noticeably from one nation-state to another. This element constitutes an important dimension of cross-national comparisons. The local state powers of communities in Canada are much less than those of American states. Consequently, specific policy options that are workable and wise in the United States may be weak or infeasible in Canada. Nevertheless, local institutions that exercise land use controls do exist in virtually every society.

Land varies in its economic potential and therefore in its value, so its potential dictates the community's economic vitality to a large extent. Historically, great cities have emerged where land had great economic potential. Breaks in modes of transportation made land in the immediate vicinity valuable, since it was needed for freight transfer activities and as a site for housing workers and providing for their needs. Breaks in transportation helped to create harbor cities, railroad junction cities, and river cities. Today, air transportation and motorways have diminished the transportation break as the basis of land value in cities. Where other uses have been found for the land and the value has remained high, the city economy has retained its vitality. In some instances, once-thriving transportation break cities have declined and shrunk to near extinction. Communities established because of immobile natural resources face a similar threat once the resource is depleted. But every community must take steps to ensure the continued economic value of its land.

The cases of transportation and natural resource extraction imply changes beyond community control and help to determine local land values. To some extent that is true, since no community is totally autonomous. But communities can exercise considerable control over future land uses and therefore land values. The local state can determine land use through planning future land use patterns; exercising the power of eminent domain; regulating the size, type, and use of construction; and through the discretionary provision of public services. The location of roads, streets, highways, sewers, gas lines, bridges, tunnels, parks, and schools all impinge on future land use and land values.

The public investments shaping land use and land values are immobile. They cannot migrate to another community as other factors of production can. Rather, they create a magnet for attracting and retaining labor and capital needed for production. Many students of community politics note that land is the focal point of local politics. It cannot be otherwise because land is the economic resource over which the local state exercises greatest control.

Labor

Skilled workers are relatively scarce in the labor force, a situation that allows them to demand higher wages. They also are concentrated in firms and industries where research and development are encouraging innovation. These innovative firms lead or monopolize the industry, and higher profits are often passed on to labor through higher wages. Skilled labor is not only better educated but generally more intellectually agile and constitutes a noneconomic resource to the community.

There are options that communities can choose to improve their ability to retain and attract a skilled labor force. Through zoning laws they can ensure adequate land for middle class residences. They can build and maintain parks, recreation facilities, high quality schools, and adult educational programs. Provision of public services seldom used by middle class residents can be kept to a minimum or eliminated, thereby reducing the tax burden to skilled labor. Lowered taxes can be translated into a higher benefit/tax ratio for skilled workers (increase their real wages) and can increase the competitive position of the community in attracting and retaining them. 2 0

This strategy is rational from the perspective of the local state's interest in community economic vitality through maintaining or improving its economic position. It also coincides with the economic interests of middle class workers. However, this market-based option largely ignores the interests of unskilled and semiskilled workers.

To maintain equity among classes under the conditions of a market-oriented public economy, it is necessary for the central state to assume responsibility for the redistributive function. For the local state operating in a market economy, it is irrational to adopt policies that increase the benefit to tax ratio of taxpayers who already are above the average ratio: the poor, the handicapped, the dropouts (Peterson 1981). The concept of equity becomes a function of both the national and local states, but the national state is the dominant partner. The national state sets the rules for competition among local states, but local states have considerable flexibility in responding to these rules or pushing them further. The constraint for the community is that it cannot exceed the "national norms" of equity without making itself less competitive relative to other communities. Only within the limits of national rules do local attempts to redress inequitable market outcomes not affect intercommunity competition.

Capital

Unlike nation states, local states have very limited tools with which to control the flow of capital into and out of their territories. Tariffs, price and wage controls, monetary policies, and deficit spending are mechanisms reserved to the central state. Therefore, communities must use devices that minimize the local cost of capital investment in enterprises within their territories or create investment opportunities to generate a competitive advantage.

Cost reduction is the strategy most often pursued by local states. They can reduce the tax burden for firms by minimizing public services, especially to taxpayers with above average benefit to tax ratios and to nontaxpayers. They can offer public land at a discount price, or perhaps free of charge. They can provide tax holidays where law allows such practice. They can exempt or discount the assessment of real property: land, buildings, machinery, and equipment. They can reduce or ignore regulations such as safety and pollution codes. Such public subsidies can attract capital to the community, but the extent to which the local state can reduce costs to capital without jeopardizing long term economic vitality is a matter of considerable debate.

There is a form of capital that has been largely unnoticed, perhaps because of its newness. Cash transfer payments and investment income paid to retirees constitute a significant proportion of personal income in most industrially advanced nations. In the United States it accounts for slightly over one-third of aggregate personal income. Retirees, recipients of these payments, are quite mobile and when attracted to a locality, they bring their benefit payments and dividends with them. These dollars function in the local economy in the same manner as any other export money flow, provided the locality can capture them.

Thus, another strategy involves making the community more attractive to retirees with substantial cash transfer and investment incomes and creating ways of capturing the capital they bring with them.

Adapting to Change

Our underlying theme to this point has been that dynamic conditions in the economy create a need to be flexible, adaptable, and ready to make decisions to adjust to change. An institutional capacity affecting community economic vitality is the capacity to perceive and accommodate change. The local community must be able to distinguish problems and symptoms and create an appropriate response. This dimension of the community's institutional structure is typically embodied in its ability to assemble both private and public capital, labor, and technology. The public dimension is the ability of local government and community organizations to anticipate and influence change, to make intelligent decisions about policy, to develop programs, to implement policy, to attract and absorb resources, to manage resources, and to evaluate current activities to guide future actions (Hondale 1981). In essence, the institutional capacity question of community vitality becomes, "Can communities appropriately define problems and use internal and external resources available to guide their own economic development?"

The discussion of institutions and community economic vitality leads to a series of questions about institutions influencing resource use: the incentives and aspirations of individuals, orderly change through time, entrepreneurship, capital accumulation, technological change, labor supply, and geographic and occupational mobility of labor. It is important also to recognize these dimensions and how they affect community economic vitality.

Entrepreneurship is a key institutional ingredient in community economic vitality. Entrepreneurs bring together the resources, take the necessary risks, have the ideas, provide the ingenuity and the energy to create new products and services, and search out markets (Shapero 1981). By definition they are responding to change and trying to capture the opportunities embodied in change.

While entrepreneurs are created, not born, there are certain personal characteristics associated with entrepreneurs that set them apart from the average person:

1. A disposition to accept new ideas and try new methods. Individuals likely to engage in entrepreneurial innovation have a minimal commitment to existing norms and institutional arrangements. Because they have this minimal commitment, they can perceive alternative behavioral patterns and ways of doing things. This means that the individual is comfortable both with uncertainty and risk and is inclined to undertake innovative behavior.
2. A need to achieve. There is some internal drive to succeed that permits the individual to accommodate risk and seek innovative ideas to reach that achievement.
3. A tendency to set moderately difficult goals. They are very result oriented, but do not set goals for themselves that are either unachievable or present no challenge.
4. An ability to accept and act according to feedback. In other words, they are sensitive to feedback, adjust to it, accept it when valid, and use feedback to

make adjustments to accommodate variations from where they expect to be and where they actually are (Pryde 1981).

Some particular skills of entrepreneurship that appear to be relevant to this discussion include an ability to perceive market opportunities accurately and to devise effective strategies for exploiting them; the capacity to identify and meet resource needs, to determine what resources are in short supply and find either substitutes or alternative sources; skills to manage political relationships, being capable of working with people in the community (especially local government) to implement an idea; an ability to manage interpersonal relationships, because an individual cannot do it alone. Successful entrepreneurs are able to build a team of people to work with them in building an effective business organization (Pryde 1981).

There are several features of communities that seem to encourage entrepreneurial innovation. First, it is important for a community to create an atmosphere of "immunity" or "indifference" that permits individuals to experiment with different ways of doing things. Otherwise, tradition becomes the standard and change is virtually nonexistent. Second, community social institutions are characterized by considerable differentiation, not uniform traditional patterns. Thus, diversity is common rather than unique. Third, power within the community is diffused rather than concentrated; vested interests have less control. Fourth, the source of economic power is diversified, rather than from one or two sources. A narrow common source is more likely to resist emerging market forces and become isolated. Finally, the means for social mobility are widely available, rather than narrowly restricted. So entrepreneurs find many opportunities available to them.

Institutions can be either facilitators or barriers to economic vitality. Traditionalism is a barrier to economic vitality, while the willingness to accept change and technological innovation is a positive element supporting it. Economic institutions provide rules for adjusting to and accommodating conflicting demands among different interest groups within society. Economic theory typically assumes that necessary institutions either exist or will develop. However, creation of an institutional framework supportive of community economic vitality is not automatic and may be the critical element in a community's economic development efforts.

Summary

Community economic vitality is concerned with efficient use of a community's resources, maintenance of those resources, and adaptability of a community to changing conditions. This has several implications for efforts to examine or define community economic vitality. First, it is a long run dynamic concept that cannot be replaced by short run "resource exploitation" for current residents of the community. Second, the local state is typically the sociopolitical economic institution most concerned with territorial interests of the community. Interests of the local state, national state, and private sector need

not conflict, but often will not be identical. Third, ensuring equity in the outcomes of economic activity is a legitimate function of both local and national states, although the local state is the junior partner in the endeavor. Fourth, community economic vitality is a function of local and nonlocal economic, social, and political forces.

Any discussion of community economic vitality must start with the external forces affecting a community. External demand and national and international economic conditions are critical, because they provide an expanding (contracting) market for locally produced goods and services.

For a community to respond to external demand, it must have appropriate economic sectors. There must be businesses in the community either selling to or capable of selling to the external market. These businesses should be significant forces in the local economy and have strong linkages back into the rest of the community.

Additionally, the availability of resources must be considered. A community needs to possess natural and man-made resources, plus public and human capital used to produce goods or services demanded either locally or nonlocally. Those examining the resource base of the community need to be aware of the mobility of those resources into and out of the community as well as among uses in the community.

Typically, a community's resource base is given, as is demand for a community's goods and services. Thus, the question really becomes how does the community interpret that demand and allocate its resources to produce the appropriate output? This interpretation is the capacity of the community to identify problems, perceive solutions, and mobilize the community to overcome many demand and supply related obstacles. Likewise, it may permit the community to use existing resources in unique ways to generate new potential for the community.

Any effort to explain community economic vitality should have the following characteristics. First, the model needs to explain the behavioral relationships of economic units within the community; households, businesses, or government agencies, and their different roles in the community. Second, the model needs to incorporate the types of linkages that occur among economic units within the community and linkages with economic units outside the community. Third, the model needs to consider the "policy handles" available that allow either external or local political units to intervene in the economy. Political units include citizen groups with quasi-governmental status such as a local development corporation, and do not preclude action by individual households and businesses to achieve their own economic goals.

The inclusion of policy options incorporates the decision making capacity of the community and its ability to recognize a problem and make an appropriate choice. To be of much use, the model needs to have both short and long run policy tools. What can the community do next month to improve its situation versus long run activities that will improve its situation over time? The presence of short and long run policy tools means that the model needs to consider both short and long run relationships that exist within the economy.

Chapter 2
Rural Economies and Farming: The Link

RON SHAFFER, PRISCILLA SALANT, and WILLIAM SAUPE

The influence of changes in rural communities on farming has not received as much attention by researchers and policymakers as the reverse relationship. Congressman De La Garza, chair of the U.S. House of Representatives Committee on Agriculture, recognized this gap in our understanding in his introduction to a 1983 House Agriculture Committee report:

"There is today a great and serious gap in the information which Congress and policymakers in other areas need to make intelligent decisions about issues involving the future of the nation's agricultural communities. We have a great deal of up-to-date and detailed information about the industry of agriculture. But we have much too little information about what is happening in the communities in which our farm families live, and what developments in those areas mean to the people there and to the rest of the nation."

Even though the farm economy has grown according to almost any measure, it no longer dominates rural America. Net farm income increased (in current dollars) from $14.4 billion in 1970 to $16.1 billion in 1983. This was an erratic, volatile period. Net farm income peaked at $32.3 billion in 1979 and exceeded $20 billion in all but five years between 1970 and 1983 (Economic Research Service 1983).

Rural communities are rapidly supplementing farming with nonfarm activities. Farm income accounted for 3.3 percent of total income in the United States in 1965 and only 0.9 percent in 1983, even though farm income grew by 40.3 percent over that period (USDA 1983). With this relative decline, two trends of increased importance to policymakers are the disappearance of homogeneity across rural areas (Blakely and Bradshaw 1983) and the increased link between farm and nonfarm sectors for both inputs and markets.

Theoretical Constructs Explaining Interaction

Three important ways to explain community and farm linkages are export base theory, central place theory, and welfare theory. None provides all the insights desired, but each emphasizes important relationships and their influences. Many experts have an implicit theoretical foundation for discussing

farm-rural community links, but the popular interpretation of the theories often is not validated by careful examination of the evidence.

Export Base Theory

Export base theory provides an understanding of the linkage between rural economies and farming. In its original form, the theory contended that the economic vitality of a community depended on its capacity to produce goods that were sold in external markets. Traditionally, the community had to physically ship a good beyond the community boundaries for it to qualify as an "export." This definition or concept, however, fails to accommodate the significant and ongoing transformation of the U.S. economy into a service producing economy. These service activities include recreation, health care, telecommunications, and engineering. It is generally accepted that such services are not frills to some minimal standard of living. These services are supplied not only in urban areas, but in rural communities as well (Smith 1984).

Current interpretations of export base theory suggest the export base of a community is any economic activity bringing income into the community, freeing the theory from the limiting idea that a physical good must cross the community boundary to be an export. This new interpretation of export base theory not only recognizes the more traditional forms of exports, but incorporates service oriented export activities, including Social Security benefits and other income transfers received by residents.

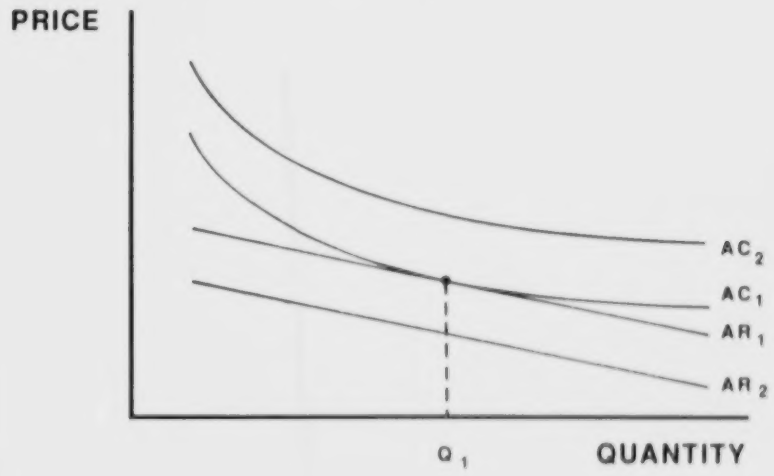
The essence of export base theory is that the export base is the engine of growth for the community. Because of the economic linkages between the export sector and the remainder of the community, growth depends on the success of the export sector. The community's economy will only grow to the extent the export base is vigorous and grows. Historically, in rural communities export activity consisted of farming and some manufacturing. Farming meets the criteria to be an export sector business. It typically ships its products beyond the boundaries of the community and is a source of external income whether through direct sales, sales to other local firms who in turn feed or process the commodity, or through federal farm commodity program payments.

Export base theory suggests economic growth occurs only through the stimulus of changes in the export sector. This ignores changes in the export sector (and its continued competitiveness) stimulated by independent changes in nonexport sector activities. Consider how changes in commodity transportation rates and the availability of storage facilities affect the profitability of local farming. A strict interpretation of historical export base theory would contend community well-being could not be improved by altering the nonexport sector first. In fact, one of the major ways changes in rural economies affect farming is through changes in what are commonly perceived as "support activities."

Central Place Theory

The second theoretical construct providing insight into the relationship between the rural economy and farming is central place theory, which suggests that community trade and service activities depend on the distance people will

Figure 2.1. Demand Thresholds



travel to purchase a good or service, the costs of providing that good or service, and the size of the market needed to earn minimum profits.

Figure 2.1 shows the relationship between an individual firm's average cost of providing various quantities of a good or service (AC1) and market demand, represented by the average revenue curve (AR1). The point of tangency of the average revenue and average cost curves is the demand threshold (Q1), the minimal market required for a firm to provide a product and still earn a normal profit.

The most common application of central place theory to the issue of farming and rural economies concerns population change. In Figure 2.1, demand curve AR2 represents a population decline. Since the given firm's average costs have not changed, the firm can no longer profitably offer this particular good or service from its present site. The firm either needs a larger market (repopulation) or its competitors must exit to make the site profitable. Alternatively, per capita income increases permit this site to continue to be a profitable location.

Central place theory partially explains why some businesses in rural communities have closed or moved. The decline in the number of farms, for example, has decreased the demand for many farm input supply firms. Likewise, the declining population in some rural areas has shifted the demand for consumer goods and services. Central place theory also helps explain why other rural areas have seen businesses expand. The recent rural population turnaround observed in some areas, coupled with increases in nonfarm income of both farm and nonfarm residents, has shifted the demand curve back to the right (or at least halted its leftward shift). Thus, the turnaround has permitted rural communities to maintain or even enlarge the number of input suppliers and/or consumer businesses.

Welfare Theory

Welfare theory is particularly concerned with equity and distributional issues. It helps us understand who receives the jobs, income, or profits. The current concern about the demise of the family farm and economic hardships of smaller and medium sized farms is in part stimulated by the distributional consequences of the benefits and burdens of the current economic malaise in farming. For example, interest rates are determined outside the farming sector. However, the burden of historically high and fluctuating interest rates falls disproportionately on the 19 percent of all farm operators that owe two-thirds of the total debt (Melichar 1984).

When examining the distributional issues of changes in the rural economy, the questions become less how to maximize the returns from resources and more why some resources fail to capture or move to those activities offering apparently higher returns. Do some farm families perceive fewer alternatives for their time and funds? Why? Does it have something to do with education or access to part time nonfarm employment?

Economics can answer in an objective fashion the questions of maximizing efficiency as long as the original distribution of income or resource ownership is given. But if the distribution of income or resource ownership is not given (or acceptable), then decisions regarding market efficiency are less clear (Just et al. 1982). Generally, economists argue that distributional questions are political decisions and all economic theory can do is review the alternatives and their implications.

Economic theory presumes, regardless of who owns the resource, the pursuit of individual returns maximizes societal returns (employment, income, wealth). Yet, all do not have equal access to resources and benefits derived from their use. In many cases, the dynamics of economic change alter the distribution of opportunity to reap the rewards from resource use. Welfare or income distribution theory helps display where and how those changes will be distributed among farm and nonfarm families and among families within each group.

Summary

These three theoretical constructs—export base theory, central place theory, and welfare theory—provide a framework for thinking about the issues of community and farming interdependencies. We are concerned about the welfare of rural residents, particularly those who farm. Central place and export base theories provide insight into the causes of the observed and anticipated socioeconomic changes. Welfare theory helps to identify the effects of socioeconomic change on particular groups.

Chapter 3
Rural Industrialization

GENE F. SUMMERS

Rural and urban differences in quality of life and access to economic and cultural resources have been a fact since colonial times. At various times in U.S. history, conditions in rural areas have reached "crisis" proportions and precipitated public concern and government intervention. Invariably, in these moments of concentrated attention on "the rural problem" or "the farm crisis," it has become apparent that economic factors were at the heart of the matter. Specifically, urban industrial growth and the transformation of agriculture have perpetuated a rural-urban mismatch in the labor supply and demand that periodically worsens to the point of requiring government intervention.

From the late 1800s to the mid-1950s, the architects of public policy followed an intervention strategy aimed at facilitating the movement of decanted farm labor to urban industrial centers. However, by the 1960s it was clear that cities could no longer absorb surplus labor from rural areas. Thus, an alternative strategy adopted during the Kennedy-Johnson era attempted to encourage the movement of capital to rural areas in order to create jobs, reduce rural poverty, improve the fiscal base of rural government, and simultaneously relieve some of the pressures on cities. This was the rural industrialization policy that was implemented through a series of Congressional legislative actions during the 1960s and 1970s.

Manufacturing

Manufacturing was chosen as the means to achieve these goals, based on a quite straightforward and simple logic. Local economies may be divided into two sectors: basic and secondary. The basic sector consists of activities that generate a flow of money into the local economy by exporting goods and services. The secondary sector consists of activities providing goods and services for consumption within the local economy. Thus, it is argued that the basic or export sector "drives" local economies, so in order to improve the economic welfare of communities or regions it is the export sector that must be stimulated. But most traditional export activities—agriculture, forestry, and extractive industries—are not movable from one community to another. However, manufacturing plants can be moved rather easily and therefore are a reasonable choice as a policy instrument. That is the logic of rural industrialization.

Unfortunately, a quarter century of experience tells us that the reality of rural industrialization has not been entirely as expected. Results have not lived up to the optimistic rhetoric of the 1960s.

It was expected that new industry (manufacturing) would create jobs for the unemployed, the underemployed, and low income people in rural communities. Studies show that local labor markets operate in ways that often work against the needs of the people for whom rural industrialization was promoted. There are at least three reasons why this is so. First, many new jobs are filled by commuters from outside the community. In many rural areas the commuter shed has a radius of 75 miles or more; workers at a new plant often live in communities scattered throughout a multi-county area and jobs "leak out" of the local community in which the plant is located. Second, a sizeable portion of new jobs are filled by in-migrants who either transfer to the community from another plant operated by the firm or migrate to the area to take advantage of the new jobs. Finally, new jobs often are filled by those who have not previously been in the labor force. Consequently, only a small fraction of jobs created by a new industry employ those people in the community whom it was intended to help.

Even so, there is evidence that the unemployment rate declines in communities with new industry. But the benefits are small relative to the magnitude of the problem. The largest declines in unemployment have been observed in cases involving multiple plant locations. There appear to be several reasons for the modest improvements in the unemployment rate. Leakage of jobs to commuters and in-migrants certainly is a major reason. Also, new entrants often are less stable in the labor force than are experienced workers. Residents, who had not been counted as unemployed because they had not worked previously, were counted as unemployed after they entered the labor force and then left their jobs. Similarly, in localities experiencing economic growth it is common for workers to move from job to job, so at any given moment some will be unemployed. Thus, increasing job opportunities in a community or locality almost never eliminate unemployment. However, since the strongest declines in unemployment occur in situations with multiple plant locations, underemployment in local economies must be substantially reduced before unemployed workers are called into the workforce. In rural areas underemployment is likely to be quite high and this slack in the local labor market must be taken up before the locally unemployed find jobs.

Effect of New Industry

New industry has a positive effect on income in the aggregate or on the average. Industrial jobs typically pay a higher wage than the locally prevailing rate. But an examination of the distribution of income gains among local residents suggests that the positive effect is less clear. New industry may raise the average income in a community while depressing the *relative* income status of some segments of the population, particularly the elderly, the unemployed, and others whose incomes are not increased directly or indirectly by new industry. In general, people who do not possess resources or assets for which there is an increased demand generated by the new industry will experience a relative decrease in income. This is a particularly significant issue because in

many rural communities 40 to 50 percent of the population is over 65 years of age and not in the labor force. They live on fixed incomes that are devalued by localized inflation associated with new industry.

The logic of rural industrialization leads to an expectation of income and employment multiplier effects in the local economy. Jobs and income added to the community by new industry should stimulate further income and jobs in other export businesses, and in firms in the secondary sector as plant workers spend their payroll and the plant makes purchases of goods and services locally. During the 1960s the U.S. Chamber of Commerce, through its publications, told local communities to expect three new nonmanufacturing jobs.

There are multipliers, but their magnitude is far smaller than expected, ranging from virtually none to as high as 3.0; the average is approximately 0.3. That is, it takes about three manufacturing jobs to generate one additional job in the local economy.

There are at least three reasons why the multiplier effect is so low. First, payroll and jobs leak out of the local community through commuting of workers, area-wide trading patterns, recreation travel outside the area, payment of taxes to nonlocal units of government, and other transactions that take residents' dollars outside the community. Second, most rural communities have many facilities—commercial, residential, industrial, and public service—that are underused. Until use reaches nearly full capacity, additional construction seldom occurs. The dampening effect is similar to the underemployment effect on the unemployment rate. The slack must be removed from the system before the anticipated effect of multipliers will be realized.

Finally, many industries locating in rural communities purchase their supplies, production materials, financial services, legal services, and marketing and advertising services outside the local community. Similarly, the product of the plant is shipped immediately to nonlocal sites for additional processing, warehousing, or sale. Thus, there are very few backward or forward linkages of manufacturing plants that are located in the community. The payroll of the plant workforce is the principal contribution to the local economy and, as already noted, much of that leaks out. Consequently, the income and employment multiplier effects of new industry generally are rather modest.

To the extent that stabilizing the population of rural communities is a goal of industrialization, it is very successful. Unequivocally, new industry halts population decline, mainly from increased in-migration and unchanged or slightly decreased out-migration. New industry, however, does not mean that large numbers of young people will cease to leave their rural home towns in search of work and education. It does mean that as they leave, other young families move in. Consequently, rural communities with new industry have migration flows that more resemble those of larger cities and metropolitan areas. The changed demographic structure means future changes in the types of services and products demanded by community residents.

All of these changes associated with rural industrialization have a stimulating effect on local trade and commerce, even though the impact is less than hoped for. Real estate and retail sales are particularly worth noting because they

represent the major components of the revenue base of local governments: property tax and sales tax.

The inventory of parcels of real estate on tax books generally increases with new industry, especially residential parcels. This is consistent with the evidence of population growth, of course. Most communities experience little growth in commercial and industrial parcels, probably due to the underutilization of existing facilities and the backward and forward linkages of new industry. On the other hand, assessed valuation of real property virtually always increases in all categories: residential, commercial, and industrial. Clearly, the property tax base is enhanced by rural industrialization.

Similarly, retail sales increase with new industry, reflecting both aggregate growth in income and population increase. The magnitude of growth is often relatively modest and less than expected, but this experience is consistent with the leakage of payroll and jobs already mentioned. Clearly, there is private sector growth resulting from new industry and it is not surprising, therefore, to find local merchants, bankers, and real estate developers active in promoting new industry.

One of the primary goals of rural industrialization policy has been to improve the fiscal base of local governments. As just noted, the tax base generally is increased in communities with industrial growth. But that is only one side of the public ledger. To local governments, people cost money and more people cost more money. Where new industry brings population growth, it often strains the public service delivery systems and increases costs to local government. Increased expenditures occur as schools, police protection, highways, streets and roads, and health services and facilities are provided. All of these needs are quite reasonable consequences of a growing population with school age children.

Of course, the ultimate question with respect to the local fiscal impact of new industry is its net effect on government revenues and expenditures. This is not well studied and most analyses are rather short run, less than five years after the location of a new industry. However, evidence clearly suggests that in the short run increased costs outweigh gains in the fiscal base. Positive net gains have been observed where no local subsidy was offered to industry and where there was little or no population increase.

Summary

The basic logic of rural industrialization appears to be sound but several assumptions about the mechanics of the process are violated in practice, resulting in inaccurate estimates of impact and unfulfilled expectations. For example, the extent of leakage of jobs and income often is underestimated, the underutilization of labor and facilities is not adequately estimated, benefits are assumed to outweigh costs and seldom are actually calculated, and the distribution of costs and benefits to various segments of the local community, especially the elderly, is seldom considered.

Perhaps the most serious oversight is that manufacturing is not a source of employment growth nationally. Goods production as a percent of GNP is doing reasonably well. The total value of industrial output also is doing reasonably well in comparison to other sectors of the national economy. But as a source of new jobs, manufacturing clearly cannot provide needed employment growth for all local economies.

This does not mean that local community economic development groups should abandon the possibility of attracting new industry. Clearly, new industry can have positive effects on a local economy if officials use sound judgment and good timing is possible. But new plants are far too few to provide a solution to more than a handful of communities. What is needed is a policy initiative that encourages and supports a comprehensive strategy for community economic development, outlined by Professor Glen Pulver of the University of Wisconsin. Such a comprehensive strategy should at least include: attracting new basic employers, including nonmanufacturing firms that export goods and services; providing assistance to existing employers, encouraging and assisting new business start ups, enhancing communities' ability to capture dollars already existing in the local economy; and helping local governments to secure funds available for nonlocal units of government. Thus, rural industrialization is but one of several strategies to deal with inequalities of economic opportunity and quality of life.

Chapter 4
Change in Nonmetropolitan Industrial Employment

FRANCINE HORTON

The United States has been experiencing profound changes in manufacturing production. There has been a decline of manufacturing employment as a proportion of total employment, decision making has become more centralized, and there has been a decentralization of manufacturing production.

These related trends are important to recent economic restructuring and can be observed by changes in the location of manufacturing employment. This chapter examines these trends as they relate to nonmetropolitan areas and reconsiders the changes as they relate to recent industrial policy debates.

Manufacturing employment as a proportion of total employment declined from 26.2 to 22.1 percent between 1973 and 1980 (Bluestone and Harrison 1982) and is expected to continue to decline as service industries, in particular, increase their share. This can be partially explained by the "post-industrial" phenomenon, whereby technological advances allow for more labor saving techniques and greater need for service industry labor (Bell 1973). More recently, this proportional decline of manufacturing employment has been explained by the relocation of production employment to overseas locations. Undoubtedly there is truth in both explanations. Manufacturing in the United States has generally reached a sufficient level of maturity to enable movement of some stages of production to new locations offering competitive cost advantages. This movement is deemed economically necessary in an increasingly competitive global economy and benefits greater efficiency in production. The multinational corporation, with the aid of communication and transportation technology, is inextricably linked to the decentralization of production. It is the excellent organizational structure that enables centralized decision making about decentralized production facilities overseas or in small outlying communities.

Change in Nonmetropolitan Employment

Survey data from 275 nonmetropolitan counties across the United States show a continual increase in manufacturing employment between 1947 and 1980, with an increase of 10 percent after 1947, 31 percent between 1959 and 1970, and 8 percent between 1970 and 1980. The large increase of 31 percent during the 1960s logically predates the population turnaround of the 1970s.

In a study of manufacturing employment for the period 1969 to 1975, James P. Miller (1980) examined the changes in employment by firm starts, closures,

relocations, and expansions/contractions. Miller considered employment change in manufacturing by metropolitan/nonmetropolitan comparisons. The percentage change in employment due to starts and closures was similar for metropolitan and nonmetropolitan areas between 1969 and 1975. The increase in nonmetropolitan over metropolitan manufacturing employment during the period, then, can be attributed to greater expansion of existing firms. Employment change by relocation is not included because in Miller's study it was very small.

Breaking this down by regions, all nonmetropolitan areas of the four census regions (Northeast, North Central, South, and West) fared better than metropolitan areas, with the exception of the South. The gain in employment for metropolitan areas was 4.4 percent compared with a gain of .2 percent in the nonmetropolitan South. This is not too surprising when the unique conditions in the rural South are considered. The region has been more heavily industrialized than other rural regions, particularly in low wage, labor intensive (LWLI) industries such as textile and apparel. It is more densely populated and has greater poverty and higher unemployment than other rural regions. While a population turnaround was taking place in other regions, the South was experiencing something different: lower population growth rates in nonmetropolitan counties compared with southern metropolitan counties (Rosenfeld et al. 1985).

Due to early industrialization and the mobility of these industries, parts of the rural South have been adjusting to many of the same strains as the industrialized Northeast, and for basically the same reasons. Industries that can are moving to areas of comparative advantage. For southern rural manufacturing, this means primarily overseas locations for the LWLI industries. What is left in its wake are pockets of high employment (Rosenfeld et al. 1985).

Between 1975 and 1979 the nonmetropolitan counties of the United States continued to increase their share of manufacturing employment compared with metropolitan counties and the population turnaround continued. In a study of this period Long and DeAre (1983) conclude:

In rural counties manufacturing was the most important source of employment expression, providing 35 percent of employment growth in rural counties adjacent to metropolitan areas and 26 percent in rural counties not adjacent to metropolitan areas.

In large metropolitan areas (three million or greater), 40 percent of job growth was in services. This study attributes the change in nonmetropolitan employment and population to the "deconcentration" or decentralization of manufacturing. They also briefly consider the early 1980s. During the recession of the early 1980s, the level of employment seems to have fallen slightly more in nonmetropolitan than metropolitan areas, and the unemployment rate, after being lower in nonmetropolitan territory throughout the 1970s, rose above the metropolitan level in 1980, 1981, and 1982 (Long and DeAre 1983).

Footloose Industries

Traditionally, "footloose" industries referred to LWLI industries at the mature stage of the product cycle like textile, apparel, and consumer electronics. The term refers to light manufacturing that requires relatively little effort to relocate and does so primarily to take advantage of lower wage labor. Thus it is suspected that much of the decline in LWLI industries in nonmetropolitan areas (metropolitan as well) is due to the movement of these industries to overseas locations. In the wake of the recent rash of plant closings all across the United States, particularly in urban industrialized areas of the Northeastern and North Central regions, it seems appropriate to extend the label of "footloose" to other types of industries that are also at a mature product cycle stage. Bluestone and Harrison (1982) argue that capital is moving, because it is now *able* to move and at a faster rate. Production in rural areas has traditionally been LWLI. Since the mid-1960s there has been proportionally less of this in nonmetropolitan areas and more durable goods manufacturing, paying a higher wage.

The future stability of these industries is questionable. When an area is industrialized and using unskilled labor, it is vulnerable to capital movement. The decentralization of manufacturing production over the last 20 years has tended to favor nonmetropolitan locations. However, in the future they could lose productive facilities to other areas with a comparative advantage.

Recent technological advances have enabled capital to move where it formerly could not, and at unprecedented rates. Aging industries in the industrial belt are moving to rural areas and overseas locations, in some cases because standardized production does not require the higher skilled unionized workforce, and in other cases because it is easier to build new facilities than rebuild outdated ones. This decentralization of production has characteristics very similar to footloose industry behavior, so that the reference to footloose industries has come to include some durable goods manufacturing as well as light, nondurable goods.

Another characteristic of plant closings is that most often they are branch plants. A study by Barkley and Paulsen (1979) in Iowa concludes that locally owned plants are more stable. Increasingly, plants are not owned locally. This aspect of corporate structure is tied to the new global economy. The location choices for multibranch and multinational corporations span the globe and the differences in comparative advantage can be significant. The difference between wages of $.59 per hour in Mexico and $3.25 per hour in the United States is great and often decisive in location choice.

The footloose nature of production jobs is a contributing factor in the decline of middle income employment. The trend is toward a more bifurcated workforce. Central to this process of bifurcation is the loss of middle income manufacturing employment compounded by the loss of middle range management positions, which are being replaced with computerized information handling. The trend appears to be away from well paid manufacturing jobs in an industrial economy to a service economy with high paying, highly skilled jobs

on the one hand and low paying service and low skilled manufacturing jobs on the other. This is a matter of distribution of wealth and is distinct from the problems of high unemployment and low economic growth (Kuttner 1983). It is mentioned here as a partial result of understrained movement of capital in the global economy.

U.S. Industrial Policy

Change in the location of manufacturing in the United States, from metropolitan to nonmetropolitan areas, from one region to another, and from the United States to overseas locations is an important part of the overall economic restructuring that has been taking place over the past 20 years. The movement of capital to take advantage of low cost production for higher profits and greater competitiveness is not new. This had always been an essential consideration of economic development and capital growth. Recently, however, the velocity of capital movement has increased, and questions are being raised about consequences for individuals and communities (Bluestone and Harrison 1982; Summers 1984).

It is generally argued that capital must move for more efficient resource allocation. There is not general agreement, however, about how investment and disinvestment decisions should be made, and what role government, labor, and management should play. Under present policy, investment decisions are left to private investors based on their own assessment of optimal conditions for the allocation of resources for low cost production. The decisions are made within a context of tax laws, customs codes, and other investment incentives and disincentives. Although these issues are not analyzed here, they should be kept in mind to recall that "free market" does and always has depended on government intervention. This industrial policy debate centers around whether and how to put in place additional controls on capital investment.

There are those, like Bluestone and Harrison, who believe the destructiveness and excessiveness of capital mobility need to be checked and controlled with plant closing legislation. The thrust of the argument for such legislation is to make corporations and other owners of capital responsible to the communities and workers dependent on them. It is a regulatory approach with many parallels to environmental regulations.

Plant closing legislation has not been and does not appear likely to be successful. The most vocal opponent has written extensively against it on several grounds (McKenzie 1984). First, per capita income is converging among regions, proof the free market is, in the long run, working toward equilibrium. Second, restrictions on business mobility will retard economic expansion. Third, this sort of legislation is a threat to freedom. This final point is an ideological argument that is very important in this country, claiming that owners of private property should have the right to dispose of their property in any way they choose. It is frequently seen as the cornerstone of individual rights.

Then there are those arguing for a comprehensive industrial policy to control capital for greater U.S. competitiveness in the international market (Thurow 1980; Reich 1983). It calls for a reorganization of cooperative effort among government, labor, and management to promote rising industries and retire declining ones in a way that considers the losers, (the unemployed) in a process either by developing human capital to meet the needs of rising industries (Reich 1983), or by helping labor move and adjust to the more rapid movement of capital (Thurow 1980).

The arguments against an industrial policy are similar to the arguments against plant closing legislation. In a recent article reviewing the industrial policy debate, Norton (1986) considers its passing as having been in the best interest of the U.S. economy. He argues that America's diverse regional characteristics have contributed to the adjustment to economic restructuring, which the institutional structure of European countries does not allow. He further argues that it is because of right-to-work states and low wage locales that so much manufacturing employment has remained within America's national borders. The emphasis should be placed, he claims, on the success of the United States compared with that of other countries. Norton acknowledges that certain groups have been adversely affected by this adjustment, but concludes that these sorts of adjustments are unavoidable and in the long run in the best interest of the U.S. economy.

The national debate about industrial policy in the United States is relevant for rural as well as urban communities. Rural communities are very much tied to international economic restructuring and need to remain aware of their role in relation to urban and foreign economies. In addition, rural communities, as part of larger economic changes, are facing difficult adjustments to footloose industries and accompanying internal changes in social structure as exemplified by a declining middle income group.

Summary

The trends in manufacturing employment, including its decline as a portion of total employment, centralized decision making, and decentralization of production, are trends that are important to nonmetropolitan industrial employment. The decline of manufacturing employment means that other employment sectors—services in particular—are becoming more important to rural areas than in the past. Centralized decision making means less local control over employment and less responsibility of firms to local community employment needs. The decentralization of production has meant, for a time, some movement of manufacturing production from urban centers to less urbanized locations; however, with the internationalization of production, nonmetropolitan areas are facing increased competition from overseas. Many locations have already been affected by these footloose industries.

The effects of these trends on rural communities can be more devastating than their effect on urban centers, due in part to the frequent lack of diversity

within rural communities. Fundamental issues of where the responsibility lies for employment and economic well-being of individuals and communities and what institutional structures will most effectively respond to societal need are issues yet to be resolved. The industrial policy debate, therefore, has a great deal of significance for rural communities and they would be wise to follow and participate in it.

Chapter 5
Service-Producing Industries in Economic Development

GLEN C. PULVER

The current economic situation in the United States, punctuated by high unemployment and recurring budget crises, has stimulated intense analysis of all opportunities available to create more jobs, increase individual income, and enlarge tax bases. Economic policymakers in both urban and rural areas are beginning to recognize that prospective sources of employment growth are apt to be different from those of the past. There is little doubt that goods producing industries will continue to play a major role in state economic development policy. The larger question is, "Can the rapidly expanding service producing sector serve as a base for economic growth in small cities and more rural regions?" If the answer is yes, then state and local policymakers interested in economic growth need to identify those things that stimulate employment expansion in the service producing sector as well as the goods producing sector.

For a long time, regional economists have been interested in manipulating public policy aimed at the economic development of specific regions. Economic development has been defined variously as an increase in the number of new jobs, an increase in total income, and increase in per capita income, the continuous generation of new sources of wealth through entrepreneurship, or, on occasion, simply as groups of people taking control of the sources of their economic well-being. Public investments in economic well-being are rarely based on a comprehensive analysis of real development opportunities. Instead, most are typified by the historic preoccupation with goods producing industries, especially farming, forestry, mining, and manufacturing. For many years these industries have been viewed as the most effective vehicle for creating jobs and providing a basis for income growth.

Classic regional economic base theory divides the regional economy into high wage basic or export industries and low wage nonbasic local industries. A specific community's economic well-being is enhanced by an influx of income from other regions generated by exported items. Goods producing industries are considered basic and the source of most wealth. Theory indicates that income introduced by basic industries supports the nonbasic service producing industries. It follows that the primary means for a community to improve its income is to produce more goods and sell them to buyers outside the region. The relative economic well-being of any locality, state, or nation is therefore dependent upon its ability to produce and export goods. Consequently, economic development policy has been dominated by public investments in infrastructure aimed at stimulating growth of goods producing industries,

especially manufacturing. Industrial parks are developed, improvements are made in sewer and water systems, highways are upgraded, financial incentives are provided, and industrial promotion programs are implemented.

It is the general thesis of this chapter that the simplistic application of export base theory (assuming that goods producing industries are the only source of new wealth) is of limited relevance in advanced interdependent economies where individuals choose among a range of services and goods such as costly life insurance programs, complex health care, personal computers, video cassette recorders, extended vacations, and recreation vehicles.

It is often unrecognized that the U.S. economy has changed substantially over the past 60 years. In 1920, slightly more than two-thirds of American workers were involved in goods production (see Figure 5.1). A substantial percentage of them, 30.2 percent of the total U.S. population, lived and worked on farms at that time (Farm Population of the United States 1984; 1985). The decline in absolute numbers involved in farming, combined with 60 years of contrasting growth in the number employed in manufacturing, has caused regional economists to focus on public policy affecting manufacturing. In the 1980s, well over two-thirds of the employed and self employed are in service producing industries such as transportation, public utilities, trade, health care, tourism, business services, government, finance, insurance, and real estate. The absolute number of employees in the goods producing sector has remained relatively constant for 60 years, at slightly less than 30 million. Since 1979, employment in the goods producing sector has actually declined. On the other hand, the number of employees in the service producing sector increased from about 14 million in 1920 to over 70 million in 1985. Service producing industries have been the basis of almost all 1980s employment growth.

Increased production efficiency, or the ability to produce more goods per unit of input, is the result of application of science and technology in agriculture, construction, manufacturing, and mining. This efficiency produces new wealth and increased expenditures in both the goods and service producing sectors. Historic investments in knowledge generation and dissemination have enabled the United States to support a large Social Security program, space exploration, comprehensive health care, sophisticated business and individual financial services, and an ever expanding tourism industry in addition to a high level of goods production. It is entirely possible that the absolute number of people required for goods production in the United States has begun a long term decline.

The fundamental question then is, "Can service producing industries serve as the basic export sector for small cities and rural regions?" Little employment growth can be expected in either farming or manufacturing sectors. If people hope to remain in small cities and rural regions and yet still share equitably in the economic future of the United States, it will be necessary for them to find job opportunities in the service producing sector. Policymakers will need a clear understanding of the service producing sector's prospective role as an employment and income base. It is critical to know if services can be exported outside

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of a region, or if they are locationally linked to the goods producing sector. It is also important to know if they are, as some suggest, all low wage industries. If it can be shown that some service producing industries are indeed basic employers, it may be possible to influence the location and growth of these industries through public policy, much like present efforts aimed at manufacturing.

Recent Research

The service producing sector's increasing importance as a source of U.S. employment has prompted a more careful examination of the sector's role in regional economic development. Almost all important research on this topic is less than 15 years old. Among earlier pieces of work were North's "Export and Regional Economic Growth" (1956), Gershuny's *After Industrial Society: The Emerging Self-Service Economy* (1978), Singleman's *From Agriculture to Services* (1978), Stanback's *Understanding the Service Economy* (1979), and Smith and Pulver's "Nonmanufacturing Business as a Growth Alternative in Nonmetropolitan Areas" (1981). Most of these writers suggest there are no clear theoretical reasons why service producing industries cannot serve as basic or export employers, as manufacturing does. Much of this early work focused on the classification of service producing industries, such as Singleman's six categories: (1) distributive, (2) complex or corporate activities, (3) nonprofit services, (4) retail services, (5) consumer services, and (6) government services.

Most empirical work on the topic has been published in the 1980s. The work of Smith and Pulver (1981) was one of the first empirical studies to focus directly on the service sector's export capability. In 1975 they surveyed a range of Wisconsin's service producing industries to determine the economic impact of these industries on the community. Along with Ashton and Sternal (1978), Gruenstein and Guerra (1981), and later Beyers et al. (1985), Smith and Pulver found that service producing industries act as exporters. Ashton and Sternal's 1978 survey of New England service producing industries found that 20 percent exported more than 50 percent of their sales outside the region. Gruenstein and Guerra conclude in their 1981 study that "the service sector's growth is not merely parasitic on manufacturing but is a dynamic force for economic development in its own right." Beyers, Alvine, and Johnson, in their 1985 survey of Puget Sound business, report that exports from the service sector account for more jobs than similar activity in the goods producing sector in that region.

Sharply contrasting conclusions are reached by Falk and Broner (1980), Riefler (1976), and Noyelle (1983). In their 1980 report, Falk and Broner conclude that employment growth in the service producing sector can only be achieved by simultaneous development of the goods producing sector. They used a series of regressions with 1950 to 1970 data for the 48 conterminous states in the United States. Riefer's regressions using 1969 BEA data indicate that services (excluding government) are oriented toward local markets. In 1983

Noyelle indicated that service growth in most occupations is linked to manufacturing growth. He concluded that producer and business-oriented services accounted for approximately 40 percent of GNP in 1977, and Stanback (1979) considers these the most productive service producing industries. Linkages between metropolitan areas specializing in production of final goods and intermediate services are discussed by Noyelle, and he indicates that agglomeration economies between like producers exist. In contrast, the most common clients of services in the Puget Sound study were other service firms, followed by governments and households. This casts doubt on the supposed absolute direct dependence of services on manufacturing.

There is also some disagreement over the influence firm size has on export levels of service producing businesses. The New England and Wisconsin surveys produced evidence that large service producing firms are inclined to be exporters.

Service industries as a whole generate lower wages than manufacturing. Stanback (1979) states this is true because women play a larger role in services, and a greater share of the work is part time, so the earnings structure is skewed unfavorably. Daniels (1982) indicates this is due in part because service work is easier to enter and allows more self employment. Shelp (1985) argues it is important to differentiate between and within industries. He contends that over half of all U.S. service workers are in highly skilled white collar occupations. Wages and salaries vary greatly within the service producing sector. For example, wages in the computer software program writing industry are competitive with those in manufacturing, while those in the eating and drinking industry are not. An article in *Fortune* (Coalition of Service Industries 1985) argues that much of the service sector's employment will be upscaled through efforts such as training typists to use word processors. This would in turn allow higher incomes through greater productivity.

The literature contains lengthy debate regarding the relative productivity of the service producing sector. It ranges from Stanback (1979) who sees little potential for productivity increases in the service sector, and Ruebens (1981), who blames the productivity slowdown in the United States on the lagging productivity of the services sector, to Cook (1983), who describes the wealth producing forces of the economy as the intellectual and organizational skills at the very core of services. The article in *Fortune* states that in recent years productivity has increased at a higher rate in service industries than in manufacturing, focusing on the question of long run vulnerability of service producing industries.

Location of Service Producing Industries

A number of recent studies have examined factors associated with specific location of service producing industries. These studies continue the debate regarding the necessity of proximity to manufacturing and population. Stanback asserts that since services output cannot be stored or shipped, service

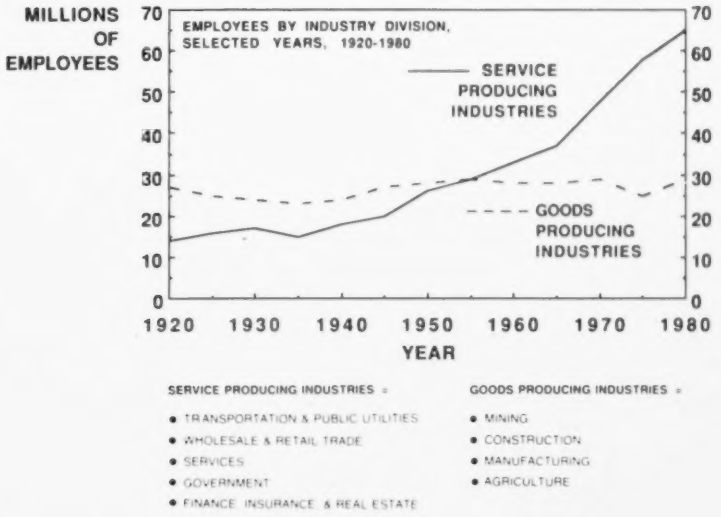
producing establishments tend to be located near their customers. Daniels (1982) agrees that easy, inexpensive consumer access is important, as well as transport and communication facilities and labor force size and skills. Beyers et al. (1985) conclude that one-third of service firms in their study chose to locate in the Puget Sound region because their founders lived there, while one-fifth chose the location because of major considerations. Smith and Pulver (1981) found the variables influencing services firm locations are not greatly different from those of manufacturing firms, except that service industries are more concerned about personal considerations of owners and managers.

In a 1985 study, Cotter (1985) found great variation in factors associated with the location of specific service producing industries. The study examines the location of employment in 40 U.S. industries that the Bureau of Labor Statistics projects will experience the greatest job growth between 1982 and 1995. Job growth is defined in absolute numbers of net new jobs rather than percentage change, and the 40 industries represent approximately two-thirds of expected U.S. employment growth during the period. The service sector accounts for 31 of the 40 industries. The study first considers location of job growth between 1976 and 1981 using a 10 percent sample of U.S. counties, stratified by metropolitan, adjacent to metropolitan, and nonmetropolitan. *County Business Patterns 1976* (1981) is the data source. Multivariate regression techniques analyze the factors hypothesized to influence the location of high employment growth industries at the county level in Wisconsin. Variables such as industrial linkages, population, road miles, railroad miles, tourism, industrial sites, and local development organizations are considered.

Between 1976 and 1981, high growth industrial employment rates were highest in adjacent to metropolitan counties, reaching 31.9 percent. Growth rates were 25 percent in metropolitan counties and 20 percent in non-metropolitan counties. Employment change in the high growth industries accounted for 54.7 percent of total industrial change in metropolitan counties. In absolute numbers of new jobs generated in metropolitan counties, eight of the top 10 industries were service producing. In adjacent to metropolitan counties, 37.7 percent of the employment change was accounted for by high growth industries. Nine of the top 10 were service producing and the tenth was a construction industry. In nonmetropolitan counties, 31.7 percent of employment growth came from high growth industries. All 10 of the top producers of new jobs were service industries. High growth industries had a stronger influence on job growth in more urban areas, but service producing industries had a strong influence in rural areas. This is apt to be even more common in the next 10 years.

In 1984 the Bureau of Labor Statistics estimated expected employment growth by industry for the United States between 1984 and 1995. The 40 industries in the 1984 estimate, in order of expected growth, are shown in Table 5.1. The top 40 in the 1984 estimate were slightly different from those studied by Cotter (1985). A review of the 10 industries expected to produce the most jobs using the location variables analyzed in Cotter's study is quite revealing (see Table 5.2).

Figure 5.1. Total U.S. Goods and Service Industries



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Source: National Commission on Employment Policy, The Work Revolution, 8th Annual Report, Washington, D. C. December, 1982

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SIC 580: Eating and Drinking Places

This single industry, which is anticipated to produce the most new jobs, was the largest generator of new jobs in all three county types between 1976 and 1981. In metropolitan areas, its presence is positively related to per capita income and positively linked to the number of trade establishments. In adjacent to metropolitan areas, it is positively associated with per capita income, number of trade establishments, railroad miles, road density, and number of industrial sites. In nonmetropolitan areas it is positively related to road density and railroad miles.

SIC 739: Miscellaneous Business Services

As a broad group of industries, business services are expected to generate the most new jobs between 1984 and 1995. Miscellaneous business services include research and development laboratories, consulting services, protective services, equipment rental and leasing, photofinishing laboratories, and commercial testing. It has grown rapidly in all three county types, although the slowest

rate occurs in metropolitan counties. In adjacent to metropolitan counties, per capita employment in this sector is positively associated with the number of finance, insurance, real estate and service establishments, the number of industrial sites, and the presence of local development organizations. In nonmetropolitan areas it is positively associated with railroad mileage. This industry has no significant location linkage with the number of manufacturing establishments.

SIC 737: Computer and Data Processing Services

Between 1976 and 1981, this industry grew in metropolitan counties only. In metropolitan areas, location of computer and data processing services is positively associated with the number of finance, insurance, real estate and service establishments, industrial sites, and local development organizations.

SIC 820: Educational Services

The industry with the fourth largest projected job growth is educational services. It has experienced high rates of growth in all three county types, but has had slightly higher rates in adjacent to metropolitan counties. This industry is positively linked with few variables—the number of manufacturing establishments in metropolitan areas and the number of trade establishments elsewhere.

SIC 736: Personnel Supply Services

Personnel supply services, projected to be fifth in net new employment, appears to be growing in metropolitan areas only. Cotter's analysis uncovered no significant location variables in metropolitan areas. In adjacent to metropolitan areas, employment in the industry positively relates to the number of finance, insurance, real estate and service establishments, number of industrial sites, and local development organizations. The number of manufacturing establishments has no significant relationship to employment in personnel supply services.

SIC 805: Nursing and Personal Care Facilities

Nursing and personal care facilities have grown more rapidly in adjacent to metropolitan and nonmetropolitan counties than in metropolitan counties. Employment is positively associated with the number of trade establishments in both metropolitan and adjacent to metropolitan areas, as well as per capita income in metropolitan areas. The only significant variable in nonmetropolitan areas is railroad mileage.

SIC 541: Grocery Stores

The growth rate of grocery stores was nearly equal in all three county types. This industry is clearly residentiary. In metropolitan areas, it positively relates to per capita income and number of trade establishments but negatively relates to number of service and manufacturing establishments, road density, and industrial sites. In adjacent to metropolitan areas, per capita employment in grocery stores is positively associated with per capita income and number of

manufacturing establishments. In nonmetropolitan areas, there are no significant relationships between employment in this sector and the variables analyzed.

SIC 531: Department Stores

Growth rates in department store employment were strongest in nonmetropolitan and adjacent to metropolitan areas between 1976 and 1981. In metropolitan areas, per capita employment in department stores is linked with per capita income and number of trade establishments. In adjacent to metropolitan areas, it is associated with per capita income and number of manufacturing establishments. There are no significantly associated variables in nonmetropolitan counties.

SIC 508: Machinery, Equipment, and Supplies Wholesalers

Ninth in expected employment growth between 1984 and 1995 is the wholesaling of machinery and equipment. This industry has grown much faster in adjacent to metropolitan and metropolitan areas than in nonmetropolitan areas. As might be expected, its location positively relates to the number of manufacturing establishments. In adjacent to metropolitan areas, it also positively relates to per capita income. In nonmetropolitan areas, it positively relates to number of industrial sites.

SIC 801: Offices of Physicians

In general, health care industries are among the fastest growing broad industrial sectors. Physicians' offices are expected to produce 405,500 new jobs between 1984 and 1995. Interestingly, employment in this industry grew rapidly in all three county types, but growth was fastest in adjacent to metropolitan areas. Employment in physicians' offices positively relates to number of trade establishments in metropolitan and adjacent counties. It also positively links with the number of transportation and utility establishments and industrial sites in metropolitan areas. It is positively linked to the number of manufacturing establishments in adjacent to metropolitan counties and number of service establishments in nonmetropolitan counties.

Conclusion

The top 10 high-growth industries are projected to produce 6,159,000 jobs between 1984 and 1985. Two of the 10—SIC 737, computer and data processing services and SIC 736, personnel supply services—grew in employment between 1976 and 1981 in metropolitan areas only. The other seven grew in all three county types, frequently more rapidly in adjacent to metropolitan and nonmetropolitan counties than in metropolitan counties. Factors associated with the location of these industries vary widely, and thus are quite specific to SIC type. As in manufacturing, targeting the search for and/or inducements to the location and expansion of firms within specific industries seems critical. In general, there appear to be no negative factors limiting the location of high growth industries in small cities.

Table 5.1. Projected High Employment Growth Industries

SIC Code	Title	Projected Employment Growth 1984-1995 (in thousands)
580	Eating and Drinking Places	1255.9
739	Miscellaneous Business Services	801.4
737	Computer and Data Processing Services	675.6
820	Educational Services (Incl. State & Local)	618.9
736	Personnel Supply Services	546.6
805	Nursing and Personal Care Facilities	505.4
541	Grocery Stores	499.1
531	Department Stores	441.1
508	Machinery, Equipment, and Supplies (Wholesale)	409.5
801	Offices of Physicians	405.5
810	Legal Services	399.7
734	Services to Buildings	333.9
891	Engineering and Architectural Services	325.5
930	Local Gov't. (Ex Hosp & Ed)	316.3
920	State Gov't. (Ex Hosp & Ed)	311.2
806	Hospitals (Incl. State & Local)	287.9
421	Trucking, Local and Distance	246.8
701	Hotels, Motels, and Tourist Courts	246.4
357	Office and Computing Machines	229.6
799	Misc. Amusement and Recreation Services	212.7

893	Accounting, Auditing, and Bookkeeping	205.4
808	Outpatient Care Facilities	199.3
594	Misc. Shopping Goods Stores	181.9
367	Electronic Components and Accessories	173.7
836	Residential Care	172.8
366	Communication Equipment	169.9
307	Misc. Plastic Products	167.3
809	Health and Allied Services, N.E.C.	164.0
602	Commercial and Stock Savings Banks	161.8
489	Communication Services, N.E.C.	149.6
804	Office of Other Health Practitioners	141.9
753	Automotive Repair Shops	136.8
633	Fire, Marine and Casualty Insurance	134.0
154	Nonresidential Building Construction	132.3
802	Office of Dentists	125.3
832	Individual and Family Social Services	105.3
491	Electric Services	104.9
275	Commercial Printing	97.2
514	Groceries and Related Products (Wholesale)	95.8
621	Security Brokers and Dealers	94.9

SOURCE: Bureau of Labor Statistics 1985.

Table 5.2. Employment Change of 10 High Growth Industries in the United States

SIC	Industry	Metropolitan		Adjacent to Metro		Nonmetropolitan	
		% of Growth Total Emp.	Ind. Rate (%) Chg. 1976-81	% of Growth Total Emp.	Ind. Rate (%) Chg. 1976-81	% of Growth Total Emp.	Ind. Rate (%) Chg. 1976-81
			581				
581	Eating and Drinking	7.12	22.30	10.71	33.52	12.63	29.92
739	Misc. Business Services	3.77	44.12	1.60	99.88	.86	60.38
737	Computer and Data Processing Services	1.41	79.75	−0.01	10.77	0.00	0.00
820	Educational Services (Inc. State and Local	2.79	27.88	.74	44.88	.49	25.07
736	Personnel Supply	2.33	64.04	.01	0.00	−0.14	−100.00
805	Nursing and Personal Care Facilities	2.86	46.49	4.49	95.56	3.49	75.15
541	Grocery Stores	2.41	17.39	3.87	23.70	2.99	16.53
531	Department Stores	.67	4.52	1.27	24.34	1.92	33.90
508	Machinery, Equipment, and Supplies Wholesalers	2.66	25.76	1.09	24.77	.97	9.67
801	Offices of Physicians	1.99	38.18	1.97	57.97	1.54	36.78

SOURCE: Cotter 1985.

*Calculated from 1976 and 1981 *County Business Patterns* data using a stratified random sample of U.S. counties.

Chapter 6
Right-To-Work and Community Job Creation

THOMAS A. HIRSCHL and GENE F. SUMMERS

The Taft-Hartley Labor Relations Act was passed by Congress in 1947. It gave states the right to pass laws prohibiting closed union shops. Since 1947, 19 states have adopted Right-To-Work (RTW) legislation. It is clear from Table 6.1 that RTW states are concentrated in the South. In the Midwest only Iowa, Kansas, Nebraska, North Dakota, and South Dakota are RTW states.

The usual argument for adopting RTW is that it enhances a state's attractiveness to industry since it weakens labor unions' ability to organize and to demand high wages and other worker benefits. RTW states should have a competitive advantage in attracting industrial capital to create jobs. The recent decision by General Motors Corporation to locate its Saturn plant in Spring Hill, Tennessee is a case in point, since Tennessee is an RTW state.

In 1984, Robert Newman showed that RTW encouraged industrial growth. Newman measured state level change in industrial employment from 1957 to 1979 and compared state rates with national growth. RTW states gained relatively more employment, even when several other factors were taken into account. The effect was stronger outside the southern states.

However, Hirschl et al. recently completed a study for the North Central Regional Center that indicates that RTW effects on employment growth differ by type of industry and over time. RTW states were winning the race for new jobs only in those industries dominated by a small number of large multiple location firms, and then only during the 1970s. For some industries, RTW states lost jobs. This is due to a complex set of factors involving industrial organization, labor unions, and labor-management relations.

Labor Unions and Industrial Organization

In our study we assigned industries to either the concentrated or competitive sector (see Table 6.2). The original idea for this dual economy with competitive and concentrated sectors originated with Averitt (1967), Galbraith (1978), and O'Conner (1973). Industries are classified as concentrated if, on a national level, a few very large firms control industry production. These firms control a high share of final product markets, have some power to set prices, and control a large share of the industry's productive capacity. Thus, production in concentrated industries is dominated by a small number of large multi-unit firms that make substantial capital commitments over long periods of time. Competition among these oligopolistic firms proceeds through product differentiation,

advertising, and technological innovation, not generally through price competition.

Firms in concentrated industries maintain their competitive advantage through implementing and developing new technologies, often with assistance from government research and development. Thus, concentrated industries tend to be the most dynamic in technological change.

In the competitive sector, firms lack the organizational and financial ability to create technological innovations on a scale equivalent to concentrated sector firms. Competition among firms in this sector proceeds mainly through final product pricing and cost minimization within already existing technologies. Industries where competitive firms predominate experience slower rates of technological innovation compared to industries where concentrated firms predominate.

Looking at Table 6.2, it is apparent that the concentrated sector is made up largely of industries manufacturing durable goods, and providing transportation services and communication services. The competitive sector is populated by manufacturing of nondurable goods, especially food and textiles, and a wide range of business and personal service industries.

Labor markets operate differently in the competitive and concentrated sectors. Employment is more stable in labor markets associated with concentrated industries, wages are higher, and there is more opportunity for job advancement. The market power and high profitability of concentrated firms make it possible for them to pay higher wages.

Labor unions are more able to function in the concentrated sector than in the competitive sector. Unions can even be a useful mechanism of labor control for concentrated firms able and willing to pay union wages. Unions provide an added dimension of employee stability by jointly establishing grievance procedures, seniority rules, and wage and salary rates. In addition, unions constitute a form of political organization for promoting the mutual interests of monopoly firms and union labor.

Firms in the concentrated sector benefit from short run monopoly positions in product markets, usually as a result of technological innovations. New products give them a temporary monopoly that generates high rates of return to capital invested, some of which can be passed on to employees. Organized labor has taken advantage of this greater ability to pay and has focused its efforts on the concentrated sector, with considerable success.

It is our expectation that the higher wages demanded by labor in the concentrated sector are grudgingly paid in part as a cost for greater labor stability. It is a price these firms can afford, but given an opportunity would reduce or eliminate. RTW may provide an institutional mechanism for creating such a cost reduction in labor costs.

Competitive sector industries are less likely to be unionized. Price competition among firms in competitive industries militates against unionism. Labor costs associated with union wages could potentially destroy or damage a competitive sector. Consequently, unionization is low among industries in the competitive sector.

RTW thus provides an institutional mechanism that firms in the concentrated sector may use to control and counterbalance union power, but has little consequence in the competitive sector. To take advantage of RTW, concentrated sector firms must possess a degree of flexibility in their organization of production that permits them to locate or expand at least some of their operations in RTW states. Previous research indicates that this capability is present (Erickson and Leinbach 1979; Haren and Holling 1979; Summers et al. 1976). Locational strategies appear to be integral to investment decisions of modern firms; indeed, the increasingly transnational character of many modern firms suggests that location decisions figure prominently in most firm strategies.

Specifics of the Study

To assess the validity of these ideas, we selected a 10 percent probability sample of counties that were nonmetropolitan in 1950, stratified by major census region: The Midwest, Northeast, South, and West. Since 1950, 45 counties have been redesignated metropolitan. This is desirable because it allows us to observe what has happened to rural America over the past 30 years rather than merely describing the effects of RTW in that part of America remaining rural throughout these decades.

The data used in the analysis are drawn from secondary sources including the *Census of Population and Housing*, *Census of Government*, and the *Register of Reporting Labor Organizations*. Because government agencies collect data in different years, the variables are not all measured in the same years. Measurement years are approximately 1950, 1960, 1970, and 1980.

A multiple regression model to explain employment changes was estimated for the sample as a whole and separately for the Midwest and South. The model could not be estimated for the Northeast and the West because the number of counties in RTW states are too few to allow for a robust statistical test.

Comparing the average employment figures in Table 6.3, it is readily apparent that more rural county residents work in the competitive sector than in the concentrated sector. However, it is also apparent that employment in the concentrated sector grew faster than competitive sector employment over the period 1950 to 1980. The bulk of the growth occurred during the 1970s when rural industrialization and the "population turnaround" caused some people to talk about a rural renaissance.

It is also worth noting that in 1950 Midwestern rural counties had more employment in both industrial sectors than counties in the South. By 1980, the situation was reversed. Both regions were growing, but the South won the race in both industrial sectors. The question being asked is whether RTW legislation was an important factor.

Estimating RTW Effects

Using the changes in employment from 1950 to 1980, we estimated the effect of RTW legislation within the Midwest and the South separately. The statistical procedures used allowed us to control for the effects of differences in taxation, proximity to a large urban area, number of union locals in the county, and median education of county residents. Because we expected RTW effects to be different in the concentrated and competitive sectors, they are analyzed separately.

Concentrated Sector

The RTW legislation appears to have had an effect only in the 1970s, particularly in the South (see Table 6.4). During 1950 to 1960 and 1960 to 1970, the RTW coefficients were statistically nonsignificant. Then during 1970 to 1980 the coefficients were positive in both regions and statistically significant in the South. This means that in the South rural counties in RTW states grew faster than rural counties in states without RTW. Adopting RTW legislation did have an effect within the South, but only during the 1970s.

In the Midwest, RTW had no effect on employment growth in the concentrated sector. RTW gave Iowa, Kansas, Nebraska, North Dakota, and South Dakota no advantage over other midwestern states at all.

Competitive Sector

Although RTW had some positive impact on concentrated sector employment change, this was not the case for the competitive sector. RTW had no statistically significant effect on proportional change in competitive sector employment during 1950 to 1960 or 1970 to 1980. There is some evidence of a negative impact of RTW on competitive sector employment. Estimations for 1960 to 1970 indicate that RTW counties in the South had lower proportional employment change than did non-RTW counties. This negative impact was stronger in the Midwest. It seems clear that RTW laws did not heighten growth rates in the competitive sector, and may have even suppressed them for a period of time.

Summary and Conclusions

At least during the decade of 1970 to 1980, rural communities in southern states with RTW laws appeared to have had a slight competitive advantage over non-RTW communities with regard to rate of concentrated sector employment growth.

This competitive advantage did not exist from 1950 to 1970. There are at least two plausible explanations for this pattern. First, the corporate strategy of moving operations to rural communities with RTW laws may not have been widespread until 1970. The process of nonmetropolitan industrial development did not begin on a large scale until the late 1950s or early 1960s (Haren and

Holling 1979). But it may be that the practice of rural industrialization was not widespread across all concentrated industries until the latter part of the 1960s. It was only then that the concentrated sector as a whole began to show positive growth rates in rural communities with RTW.

Second, the 1970s was a period of increased competition nationally and internationally among oligopolistic firms (Drucker 1980). In the context of increasing competition, cost minimization becomes a more active organizational imperative, and locating a greater share of firm activities in rural communities with RTW laws is one possible method of pursuing cost minimization.

While RTW does appear to give a slight competitive advantage to rural southern communities with respect to concentrated sector employment growth rates, this advantage does not exist in the Midwest or with regard to the competitive sector. The rate of competitive sector employment was unaffected by RTW, and in some instances affected negatively by RTW. Since more nonmetropolitan residents work in the competitive sector, the overall value of RTW for rural employment growth is distinctly limited.

Table 6.1. States with Right-to-Work Laws

State	Year of Adoption	State	Year of Adoption
Alabama	1953	Nevada	1951
Arizona	1946	North Carolina	1947
Arkansas	1944	North Dakota	1947
Florida	1944	South Carolina	1954
Georgia	1947	South Dakota	1946
Iowa	1947	Tennessee	1947
Kansas	1958	Texas	1947
Louisiana	1977	Utah	1955
Mississippi	1954	Virginia	1947
Nebraska	1946	Wyoming	1963

Table 6.2. Classification of Industries by Industrial Sector

	Sector
Industry	
Agriculture, Forestry, and Fisheries	Competitive
Mining	Concentrated
Construction	Concentrated*
Durable Manufacturing	
Furniture, Lumber, and Wood Products	Competitive
Metal Industries	Concentrated
Machinery, except Electrical	Concentrated
Electrical Machinery, Equipment and Supplies	Concentrated
Transportation Vehicles and Equipment	Concentrated
Miscellaneous Durable Manufacturing	Concentrated
Nondurable Manufacturing	
Food and Kindred Products	Competitive*
Textile Mill Products (Including Apparels)	Competitive
Printing, Publishing and Allied Products	Concentrated
Chemicals and Allied Products	Concentrated
Miscellaneous Nondurable Manufacturing	Competitive
Service Industries	
Railroad and Railway Express Services	Concentrated
Trucking Service and Warehousing	Concentrated*
Other Transportation Services	Concentrated*
Communications Services	Concentrated
Wholesale Trade	Competitive
Food, Bakery, and Dairy Stores	Competitive
Eating and Drinking Places	Competitive
Other Retail Trade Industries	Competitive
Finance, Insurance, and Real Estate Services	Competitive
Business and Repair Services	Competitive
Private Households	Competitive
Personal Services	Competitive
Entertainment and Recreation Services	Competitive
Hospitals and Other Health Services	Competitive
Welfare, Religious, and Nonprofit Organizations	Competitive
Legal, Engineering, and Other Professional Services	Competitive

SOURCE: Bloomquist and Summers 1982.

*Industries classified differently from Hodson (1978a), because of differences with both Bibb and Form (1977) and Beck et al. (1978). See Table A, in Beck et al. 1978, for a comparison.

Table 6.3. County Means and Standard Deviations for Selected Variables

		Year								
		1950		1960		1970		1980		
Variable	Region	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	N
Concentrated Sector Employment	Nonmet	1862	2806	1868	2730	2277	3195	3499	4494	275
	Midwest	2007	3075	1923	2986	2250	3370	2929	3752	96
	South	1200	1387	1333	1589	1835	2375	3287	4311	127
Competitive Sector Employment	Nonmet	5579	5266	5462	5684	5906	6791	7041	9300	275
	Midwest	5074	4043	4838	4092	4825	4474	5209	5011	96
	South	4741	3516	4429	3749	4859	4651	6076	7598	127
Per Capita Local Tax[a]	Nonmet	30.7	26.8	96.3	57.2	47.0	44.2	55.8	51.7	275
	Midwest	36.9	24.4	131.7	44.3	49.2	32.2	52.4	33.3	96
	South	20.4	20.5	59.2	46.0	33.9	30.8	51.1	59.1	127
RTW	Nonmet	.425	.495	.520	.501	.520	.501	.520	.501	275
	Midwest	.365	.483	.438	.500	.438	.500	.438	.500	96
	South	.632	.484	.771	.421	.771	.421	.771	.421	127
Median Level of Education, Males	Nonmet	8.32	1.17	9.09	1.29	10.5	1.48	[b]		275
	Midwest	8.86	.554	9.48	.983	10.9	1.25			96
	South	7.61	1.23	8.38	1.12	9.68	1.38			127
Miles to SMSA, 1970	Nonmet					79.4	51.5			275
	Midwest					93.8	64.8			96
	South					62.9	28.6			127
Number of Union Locals, 1968	Nonmet					4.00	9.58			275
	Midwest					4.48	10.44			96
	South					2.19	6.74			127

[a]Figures are in constant dollars (adjusted for inflation) where the 1967 dollar is unity.

[b]Because we used the level of education at the beginning of the decade, the variable value for 1980 is not in the analysis.

Table 6.4. Impact of Right-To-Work on Proportional Employment Change

		Decade					
		1950-60		1960-70		1970-80	
Sector	Region	β	t-value	β	t-value	β	t-value
Concentrated	Nonmet	−.0786	−1.00	.00161	.022	.317	2.38*
	Midwest	−.256	−1.23	−.000202	−.002	.308	1.31
	South	−.0354	−.387	.209	1.51	.479	1.75*
Competitive	Nonmet	.0420	1.60	−.0324	−1.11	.0302	.872
	Midwest	−.00231	−.064	−.200	−5.33*	−.0616	−1.20
	South	.0363	.886	−.146	−2.55*	.0461	.620

*denotes significance at $p \leq .10$

The β signifies an unstandardized regression coefficient. In this case the value of β represents the average (or mean) difference in proportional employment change between counties in states with RTW compared with counties in non-RTW states. If β is positive, RTW counties had a higher rate of employment change over the decade.

Chapter 7
Retirees as a Growth Industry

GENE F. SUMMERS and THOMAS A. HIRSCHL

Retirees with their pensions and investment incomes represent a major source of dollars flowing into a community, and are therefore an economic asset for community economic development. Pensions and Social Security payments were the leading source of income growth between 1968 and 1975 for more than 1,000 counties. At least half of all retirees have additional income from property, investments, and other nonwage sources, adding to the economic impact on their communities. The growth in transfer payments has not peaked and may not until the next century as the "graying" of America continues. The elderly, with their nonwage incomes, are indeed a growth industry meaningful to rural development.

As life expectancy increases, more people live to retirement age. Moreover, those who reach retirement are living to enjoy more years of leisure, financed by passive income (pensions, Social Security, and property incomes). The major growth years in the elderly population have not arrived. The post-World War II baby boom will lead to a growing percentage of elderly, who will reach age 65 between 2010 and 2030.

In 1960, fewer than one in 10 Americans was over 65. This ratio gradually increased to just over one in nine in 1980, and will continue to rise to about one in seven in 2010. The number of Americans over age 65 will increase by 64 percent between 2010 and 2030 and will account for one-fifth of the population at the end of that 20-year period (Summers and Hirschl 1985).

Passive Income

Passive income (pensions, investments, and government transfers) made up 33 percent of personal income in 1982, up from 20 percent in 1960 (Table 7.1). Thus, passive income represents a substantial and increasing percentage of total demand for consumer goods and services.

The rise in passive income is a legacy of two separate forces. First, Social Security, which was established by the federal government during the 1930s, expanded during the 1960s and 1970s. This expansion represents increased commitment by government to social welfare. Most transfer dollars are paid through Social Security and related retirement programs.

Second, widespread prosperity has enabled people to invest a share of their total income. Interest from bank deposits is the main component of the increase in investment income. Between 1960 and 1981, interest from bank deposits rose from 6.2 to 13.6 percent of personal income.

Communities where transfer payments are a large share of personal income are not necessarily "welfare havens." Public assistance payments amount to no more than 2 percent of personal income in any region of the United States. Retirement and related programs make up two-thirds of the transfer payments. Half of all cash transfer payments in 1977 were made through general retirement programs, namely Social Security and Medicare. Specific employee retirement programs contributed another one-sixth.

The difference in dollar volume between retirement and public assistance programs is not their only distinguishing factor. Public assistance is an income maintenance instrument and payments are minimal, on the assumption that interruptions in income earning are temporary. Consequently, public assistance payments are not potential development instruments. By contrast, transfer payments from unearned income usually involve larger per capita payments, the payments are not temporary, and often recipients also have property income. Since these transfer payments make up a substantial proportion of total personal income, retirement income constitutes a good base for economic development.

Retirement Income

Retirement income can lead to job growth in the same way that industrial payrolls generate jobs. Retirees spend their pensions in the local economy, creating a demand for goods and services. Retirees with reasonable incomes who live in rural areas can strengthen local economies by improving the demand/supply ratio for goods and services. When the demand/supply ratio becomes more favorable for investment and employment, capital and labor often follow, stimulating economic growth and attracting people to the area. People follow jobs. The reverse is also true and often overlooked; jobs follow people, especially people with money.

Several studies have documented that growth in retirement income creates jobs in rural communities.

University of Missouri economist Floyd Harmston found that every $1.00 spent locally by retirees in Vandalia, Missouri generated an additional $1.22 of local income and business revenue, meaning that retirement cash transfers had a multiplier effect of 2.22. In a central Oklahoma community, the elderly, with an aggregate income of $5 million, created almost an equivalent amount through the multiplier effect, according to economists Gerald Doeksen and Vandessa Lenard.

In Kentucky, Eldon Smith estimated that one new job results from each $4,425 of transfer income. Almost $4,000 of Social Security payments is sufficient to create a job in the local economy, according to our regression analysis of 170 rural U.S. counties. This amount sharply contrasts with the need for $91,743 in manufacturing payroll or $64,516 in agricultural sales to produce one job.

Why are retirement incomes more effective and efficient in creating jobs than traditional industries? The effect of retirement incomes may be somewhat overstated because we and Smith assumed that all income came from pensions. We know retirees have incomes other than pensions, and by leaving that other income out of the analysis we attributed all the effect of their total spending to their transfer income. But even if we accept that amount as half their income and therefore double the dollars needed from transfer income to create one job, the effect is still impressively greater than the effect of traditional industry payrolls and sales. So the question remains, why?

Less leakage is the answer: the elderly spend more of their income in the local economy and less of their income is taxed because of a variety of tax breaks. For example, the elderly receive a double personal exemption on their federal income tax. Thus, an important leakage from the local economy is prevented through reduced federal and state taxes.

Ways to Capture Elderly Spending

There are at least four ways that nonwage retirement income can benefit a local economy. It can (1) directly increase the demand for goods and services in local markets; (2) be used directly as a source of investment funds for local enterprises; (3) constitute a growing market for exportable goods and services; and (4) be an enormous capital pool that can provide development funds for local projects.

Local Consumer Spending

More purchases by the elderly can be captured in the local economy if the community caters to their needs. Retired people need housing, health services, retail stores, personal services, and banking. Studies of consumer spending show convincingly that elderly people spend more of their income on these items than others do. The elderly are more inclined to make their purchases in the local market when the goods and services are available.

The question of how to capture these dollars is a standard market analysis problem. What goods, services, and investments are purchased by the elderly? Where do they purchase them currently? Are their unmet needs sufficient to encourage commercial investment?

Many communities meet the needs of the elderly and stimulate new jobs with a variety of creative marketing efforts. Home delivery of all sorts of services is one innovation (or rediscovery of discarded marketing techniques). For example, retirees in many communities can now obtain laundry pickup and delivery, home delivery of groceries, hot meals, hairdressing, barbering, housecleaning, reading of newspapers, magazines, and books, and other personal services.

Home delivered health services are also available. The visiting nurse program has been successful. There is opportunity for expansion; home delivery of health services is not just for older people on welfare. Many retirees are financially able to pay for such services.

Mass communication can enhance retail shopping by the elderly who have transportation problems. For example, in Sauk City-Prairie du Sac, Wisconsin, listeners use a local radio show to telephone in offers of goods and services or to solicit them. Participants include many elderly people, local merchants, and other community residents.

Housing developments for the elderly can be much more than the traditional "old folks' home." Many communities have condominium complexes offering most essential basic services. In such a retiree development in Cape Girardeau, Missouri, one roof covers the condo apartments, grocery, barber/beauty shop, florist/card/sundry shop, pharmacy, cafeteria, chapel, hospital wing, recreation facilities, and a management office providing assistance with a wide range of personal needs. It is a small, practically self-contained community.

Local Capital Funds

In 1980, the American Association of Retired Persons (AARP) created the AARP Money Market Trust as a service to its members. Two years later, the trust was the fourth largest of its kind in the United States, with assets of $4.1 billion. There were 650,000 investors with an average holding of more than $6,300. These investment dollars are siphoned out of local economies. Very little of this capital flows back into local economies; when it does, the cost of borrowing has risen by several percentage points.

Capital shortages and insufficient capital formation are myths. The problem is the distribution of capital among geographic areas and sectors of the economy. Increased availability of capital for local enterprise development requires banking and tax policies that will make local capital funds competitive. Some of these necessary modifications are already under way.

Community economic developers can alert local investors to the benefits of local capital funds for use in their own community. The local banker and savings and loan manager should be early converts. Local entrepreneurs need to believe their enterprise is a worthy investment and be prepared to demonstrate the soundness through their enthusiasm. Hence, the road to capturing the elderly's investment money by forming local capital funds could lead to business expansion and new business formation.

Markets Oriented to the Elderly

Retirees are a strong consumer market. Economic development planners should think beyond transfer payments and property incomes received by local residents. This income, viewed collectively and across many communities, has real potential for local enterprise.

There may be too few elderly consumers in a single community to support an enterprise oriented to the local market. But, a local enterprise could "export" its product to the larger regional or even national market of retirees. Many of the goods and services used by retirees originate from regional centers, which need not be large cities. There is no reason why a nationally circulated magazine for the elderly must be published and produced in New York. It could be done just

Table 7.1. Personal Income by Source, 1960-82

Income Source	1960 Income (in billions)	% of total	1970 Income (in billions)	% of total	1980 Income (in billions)	% of total	1982 Income (in billions)	% of total
Wage and Salary	272	67.7	549	67.7	1,357	62.7	1,568	60.8
Proprietors' income[a] (farm and nonfarm)	47	11.7	66	8.1	116	5.4	109	4.2
Investment income (rents, dividends, interest)	52	12.9	111	13.9	352	18.3	482	18.7
Transfer payments	29	7.2	80	9.9	298	13.8	375	14.5
Total[b]	402		811		2,165		2,579	

[a]Included in farm proprietors' income are payments to farmers under several government agricultural payment programs. These programs are not classified under transfer payments by the Bureau of Economic Analysis, and are considered part of gross farm income.

[b]Not all categories of income are included, so the columns do not sum to the total. Not included are other labor income and social insurance contributions.

SOURCE: Bureau of Economic Analysis 1960-1982.

as well in Baraboo, Wisconsin. This argument is true for many of the goods and services destined for the elderly market.

Pension Fund Use for Local Projects

Pension funds are gigantic capital sources. Even though the fund offices may be in New York, Pittsburgh, Houston, or Detroit, their managers may be interested in development projects in Potosi, Rhinelander, Council Bluffs, or Billings. In the past, fund managers may have been reluctant to consider small scale community economic development projects. But, they now recognize the people, political power, and economic activities, and encouragement of self help.

The Wisconsin legislature recently passed a bill requiring the State Employees Retirement Fund to dedicate 10 percent of its investments annually to economic development within the state. The bill was vetoed for reasons unrelated to its merit, but the idea is sound and likely to reappear there and in other states.

The Community Mortgage Trust was recently formed in St. Louis as a joint venture of the Homebuilders Association and the Mercantile Trust, bringing together pension fund officials and home mortgage lenders. This is "the first time there has been a concerted effort to bring various lenders together with various pension funds and to try to mix and match their needs," says Beth Van Houten of the Federal National Mortgage Association (*AARP News Bulletin* 1983).

Conclusion

We must think globally and act locally to capture more of the nonwage income of the elderly and organize this capital for community economic development. National and regional trends in the size and structure of transfer payments and property incomes must be studied to identify potential markets and capital sources. There are unanswered questions requiring more study to determine how demographic changes reshape communities. For example, we do not know what effects a large retiree population may have on local public investment decisions. Similarly, we cannot say whether the presence of retirees willing to perform volunteer and part time work restricts local labor market opportunities for younger people.

However, cash transfer payments, property income, and other unearned income of retired Americans can be a significant factor in a comprehensive strategy for community economic development.

Chapter 8
The Impact of Retiree Income on Community Wage Rates

THOMAS A. HIRSCHL

A major change in American society is the aging of its population. The percentage of Americans age 65 and over has been steadily increasing for the past three decades, and will continue to increase. This demographic shift has consequences for industry and the organization of work (Feldstein 1974). One is the effect of a growing elderly consumer market on wage rates, nationally as well as locally. Many retirees have income from Social Security, private pensions, and other investments. When retirees spend income from these sources in the local community, local markets are affected to some degree (see Chapter 6). This chapter analyzes one of these effects, that of retirement income on local wage rates.

Aging and Wage Rates

There are several competing views of the relationship between local wage rates and growing numbers of elderly with retirement income sources. Some predict wages will go up; others predict wages will go down. Figure 8.1 identifies four such predictions about the impact of retirement income on local wages.

Two arguments can be made that wages will decline as the result of an increase in local elderly with pensions and retirement transfers (see Figure 8.1). First, it is possible that goods and services demanded by retirees are in industries that pay low wages, such as retail trade. An employment increase in low wage industries due to an increase in elderly demand would then decrease wages overall by lowering the mean wage. An assumption of this argument is that wage structure, by industry and occupation, stays constant as local industries expand differentially. Thus, observed change in the overall wage rate is due to an expansion of employment in low wage industries.

Second, a growth in the percentage of retirees could increase the relative level of volunteerism in the local economy, thereby depressing the demand for paid labor; one example could be service jobs in the public sector. Demand for labor would decline as employers substituted volunteer labor for paid workers. One assumption here is that the elderly have some propensity to volunteer. Empirical support of this assumption can be found in a recent national study of community volunteers in Cooperative Extension Programs (Steele 1985). Of 2.9 million volunteers, 12 percent were age 65 or older, which is nearly the percentage of elderly in the total U.S. population.

An opposing set of arguments is also reasonable (see Figure 8.1, part B). It is also possible that an increase in elderly demand would raise wage rates if the elderly created a greater demand for products from high wage industries. For example, an increase in elderly demand might be associated with increased employment in high paying occupations of the health care industry.

Another reason that an increase in elderly demand would raise wages is contingent on the local demand for labor. Wages would rise if increased elderly demand for goods and services translated into greater overall labor demand. Assuming no increase in the labor supply curve, this would cause wage rates to rise irrespective of the industry where new jobs are added.

Community Processes and Wage Rates

Two community processes govern the impact of elderly demand on local wage rates. The first is changes in community export base. According to export base theory, the community economy may be divided into two sectors. The export sector produces goods and services for nonlocal markets while the local sector provides goods and services for community residents. However, government retirement transfers, investment income from rents, dividends, and interest can be considered exports since they are an external flow of cash into the local economy (McNulty 1977). In the analysis reported here, all these sources of external income are treated as elements of the export base.

In our study the local sector consists of the following industries: health and hospital, recreation and entertainment, financial, food and dairy stores, and utilities. The level of employment in the local sector is determined by the volume of exports. A positive change in export activity results in a positive change in local industry activity (Tiebout 1962). Traditionally, the export sector has been viewed as consisting of agriculture, mining, and manufacturing activities.

The second community process is change in occupation mix. A recent study by Bloomquist and Summers (1982) indicates that change in occupation mix can raise or lower family income, depending on the type of change. Three categories of occupation mix are in the model: lower, middle, and upper.

Local wage rates will change as a result of changes in the export mix, changes in local (nonexport) industry mix, and changes in occupation mix. This causal system is illustrated by Figure 8.2. Local, as well as export industries, can have a causal impact on the local wage rate directly or indirectly by changing the community occupation mix. Generally, a change in a community's industrial mix will also bring about change in its occupation mix.

Sources of Data

The model shown in Figure 8.2 is estimated with a 10 percent sample of nonmetropolitan counties. This 10 percent sample is the same one used in

Chapter 6, where data are from secondary sources. Measurement years for the variables are 1960, 1970, and 1980, and the model is estimated separately for the decades 1960 to 1970 and 1970 to 1980.

The export sectors and local sectors are change scores measured across two decades (see Figure 8.2). Agriculture and mining are measured with employment data from the Census of Population. Manufacturing payroll is derived from wages and salaries paid to employees and was reported in the Census of Manufactures. Government retirement transfers and investment income are from the Bureau of Economic Analysis Personal Income series. The local sectors are all derived from an employment series from the Census of Population.

The occupation mix variable is derived from the 11 major occupation categories in the Census of Population. Percent low level occupation is the percentage of farm workers, nonfarm laborers, and private household workers. Percent middle level occupation is the percentage of clerical workers, craft and kindred workers, and operatives. Percent upper level occupation is the percent of professional and technical workers and managers and administrators. Percent change in occupation mix is the percentage of a given occupational level at the end of the decade minus the percentage at the beginning of the decade. Thus, a county with a negative score for low level occupation had a higher percentage of low level occupations at the beginning of the decade than at the end of the decade. We expect wages would rise in such a county.

Wage rate is measured by dividing total wages and salaries earned by county residents into the number of county residents in the workforce. Wage and salary data are from the Bureau of Economic Analysis and the workforce variable is from the Census of Population. This measure of change in wages is biased by two considerations.

First, this measure does not account for multiple job holders. If a county resident holds more than one job, the Bureau of the Census will only count that resident's primary or self-reported job. Earnings from the nonreported job will bias the wage rate upward.

Second, this measure of wage rate does not account for part time and seasonal workers. If a particular county has a large number of part time workers, the wage rate will be biased downward because annual wages of part time workers are generally lower than those of full time workers. But part time and full time hourly wages may not be different.

Adjusting the gross wage rate to account for these two sources of bias is a major obstacle. A satisfactory method could not be achieved within the present research design. Future research may have to rely on individual level data sources.

Results

The impact of export industry mix, local (nonexport) industry mix, and occupation mix on change in local wage rate was estimated with ordinary least

squares, and the specific results are available from the author. Estimations were made for three sets of structural equations across the 1960s and 1970s. Only the net impact of this system of equations on the local wage rate is reported here (see Table 8.1).

Before discussing the estimation results depicted in Table 8.1, it is important to note that there is an important difference in how wages were changing during the 1960s compared to the 1970s. Between 1960 and 1970, the average county wage rate increased by an average of $1,151, but decreased by $516 between 1970 and 1980 (adjusted to real 1967 dollars). Thus, the overall direction of change was different for the two decades. This difference in direction of change indicates that there are structural economic differences between the two decades.

The estimation results reported in Table 8.1 are in terms of net effects. A variable can affect changes in wage rate directly, or indirectly by affecting an intermediate variable(s), which directly affects change in wage rate (see Figure 8.2). Because reporting all the indirect and direct effects in the system of equations would be complex, only the net effects for each variable are reported to permit clear interpretation.

The net effect of government retirement transfers on change in community wage rate was positive during the 1960s and negative during the 1970s. During the 1960s, there were positive direct and indirect effects of retirement transfers on wages. These effects reversed during the 1970s, when both the direct and indirect effects of retirement transfers turned negative. This reversal indicates that the effects of retirement transfers on wages are not stable across time and the other factors are associated with retirement transfers.

One of these factors is investment income. Because retirees often receive income from government retirement transfers and investments, these two variables are highly correlated ($r = .9$). Due to the strength of this correlation, it is not statistically possible to identify the effects of investment income separately from transfer income. These two variables have common effects on wages, and without individual level data it is not possible to measure their effects separately.

Investment income had a positive effect on change in wage rates across the 1960s and 1970s. Whether this positive effect is due to investment income owned by retirees or nonretirees is not possible to discern with available data. It is therefore not possible to rule out the possibility that a growing level of retirement income raises local wages.

Growth in county employment in agriculture related industries had a negative effect on change in local wages across both the 1960s and 1970s. This finding is consistent with the fact that agricultural wages, especially the wages of farm workers, are lower than wages in other industries. A county with a growth in agricultural employment should have lower wages.

Three variables had positive effects on wage rate during the 1960s, and a negative effect or no effect during the 1970s. Counties that gained in mining employment, food store employment, and recreation and entertainment employment experienced greater than average growth in wage rates during the

1960s. But growth in these three did not produce the same results during the 1970s. In fact, counties that gained food store employment during the 1970s experienced wage declines. One possible explanation for this pattern is that these industries have different effects in different contexts. During a period of overall wage increases, growth in these three industries raises wages. But this appears not to be the case during a period of overall wage decline.

Upper level occupations had a negative effect on wage rate during the 1960s, but no effect during the 1970s. The negative effect of upper level occupations is counter intuitive. One possible explanation is that gains in upper level occupations lessened the quite substantial positive impact of middle level occupations on wage rates. A county that gained in upper level occupations might have done so at the expense of gains in middle level occupations, while the percentage of low level occupations stayed constant, or even increased.

The impact of middle level occupations on wage rates was positive in both the 1960s and 1970s, and statistically powerful. An increase in a county's middle level occupation mix is strongly associated with rising wages. This relationship appears to be invariant with respect to the differing economic conditions of the 1960s and 1970s.

Conclusion

The relationship between retirement income and wage rates appears to be complex and changing over time. During the 1960s, government retirement transfers affected wage rates positively. There is some indication that this relationship became negative during the 1970s, but because retirement transfers are highly associated with investment income, it is not possible to statistically confirm this finding. This finding may indicate that increased government retirement income alone does not have a positive effect on wages. Wage rate increases may occur only when increases in government retirement income are accompanied by an increase in investment income. In other words, the presence of economically better off retirees tends to raise local wages.

An important question for further research is how different economic classes of elderly affect a local economy. It may be entirely unwarranted to view growing local numbers of elderly as a panacea for development. The response of local markets to the presence of elderly may depend heavily on the economic well-being of the elderly themselves.

A. Why Wage Rates Will Decline
   1. Retirees demand goods and services in low wage industries.
   2. Increased volunteerism among retirees.

B. Why Wage Rates Will Rise
   1. Retirees demand goods and services in high wage industries.
   2. Added retiree demand causes total employment to rise.

Figure 8.1. Hypothetical Impact of Retirement Income on Wage Rates

Export Industry Mix

Local Industry Mix

Occupation Mix

Wage Rate

Export Industries: Government retirement income, investment income, manufacturing employment, agricultural employment, and mining employment.
Local Industries: Health and hospital employment, recreation and entertainment employment, financial employment, food and dairy store employment, and utility employment.
Occupation Mix:
Upper level: Professional, technical, managers, and administrators.
Middle level: Clerical, craft and kindred, and operatives.
Low level: Farm workers, nonfarm laborers, and private household workers.

Table 8.1. Net Effects of Industry and Occupation Variables on Local Wage Rates, 1960-1980[a]

	Decade	
Variable	**1960-70**	**1970-80**
Retirement transfers	+	−
Investment income	+	+
Agriculture employment	−	−
Mining employment	+	0
Food store employment	+	−
Recreation and entertainment employment	+	0
Upper level occupations	−	0
Middle level occupations	+	+

[a]A plus sign indicates a positive net effect, a minus sign indicates a negative net effect, and a zero indicates no net effect. Net effects were computed from estimations of a fully recursive system of equations illustrated by Figure 8.2.

Chapter 9
Change and Persistence in Poverty Rates

LEONARD E. BLOOMQUIST

When poverty rates were first measured in the early 1960s, two patterns were evident: Poverty rates were higher in nonmetropolitan communities than metropolitan communities and higher in southern communities than nonsouthern communities. While these patterns in community poverty rates have persisted to some degree, by 1980 there had been a striking convergence between the poverty rates of metropolitan and nonmetropolitan communities and between southern and nonsouthern communities.

Much of the convergence that has occurred can be attributed to economic development of nonmetropolitan communities, and of southern nonmetropolitan communities in particular. Industrialization of nonmetropolitan America has been widespread (Summers et al. 1976) and employment in the service sector has steadily expanded (Haren and Holling 1979). Conversely, agricultural employment has declined precipitously (Fite 1981). These trends have been especially pronounced among southern nonmetropolitan communities (Haren and Holling 1979; Bluestone 1982).

The economic development of nonmetropolitan communities has been highly uneven, however. Many nonmetropolitan communities have been "left behind" by the development that has occurred in most of nonmetropolitan America (Whiting 1974). This unevenness in development experiences is characteristic of the nation as a whole as well as of particular regions. For example, while the nonmetropolitan South experienced the greatest reduction in poverty rates in the postwar period, most of the metropolitan counties that have had persistently high poverty rates throughout this period are southern counties (Hoppe 1985). A key to persistence in high poverty rates seems to be a continued dependence on agriculture as a source of local employment (Hoppe 1985). There also are indications that certain kinds of nonagricultural employment are more strongly related to high poverty rates than others; in particular, labor intensive manufacturing and personal service industries (Seninger and Smeeding 1981; Morissey 1985). In addition, poverty rates vary by characteristics of the local labor force. Namely, the labor force participation rates of male and female residents and their education levels influence the level of poverty in a community, as does the proportion of nonwhites and elderly (Seninger and Smeeding 1981).

This chapter reports the findings from a study designed to analyze how poverty rates of nonmetropolitan communities are related to industrial, labor force, and demographic characteristics. The focus of the analysis is twofold: an examination of how these relationships have changed over time and com-

parisons made across regions, with emphasis placed on southern versus nonsouthern communities.

The analysis will show that the convergence over time in the poverty rates of southern and nonsouthern communities has been largely due to the disproportionate drop in southern residents' employment in agriculture and related industries and the relative improvement of their education levels. However, the persistence of higher poverty rates among southern communities is the result of regional contrasts in the relationships between poverty rates and nonagricultural employment and men's labor force participation (plus the continued concentration of rural nonwhites in the nonmetropolitan South).

Sources of Data and Variables

The data to be used in this analysis are from a 10-percent random sample of counties in the United States with nonmetropolitan status in 1950, stratified by major census regions (n = 275). By 1980, 45 counties had been designated as metropolitan. Thus, the sample captures some of the metropolitanization that has occurred in much of nonmetropolitan America. Variables are drawn from the 1960, 1970, and 1980 Census of Population and Housing.

Poverty rate is measured as the proportion of families with incomes below the official poverty line in a given year. It is taken directly from Census publications and controls for family size.

Industry characteristics are measured as the proportion of a county's civilian labor force employed in three different types of industry: (1) extractive (agriculture, forestry and fishing, and mining), (2) nondurable manufacturing, and (3) durable manufacturing (including construction). Morissey (1985) found that nonmetropolitan counties with high poverty rates have a disproportionately high share of the first two types of industry and a low share of the third type. Consequently, the proportion employed in the first two types of industry should be positively related to community poverty rates while the third should prove inversely related.

Labor force characteristics refer to men's and women's labor force participation rates (that is, the proportion of each over 16 who are in the civilian labor force) plus the median years of education of residents 25 years and over. All three variables are expected to be inversely related to poverty rates.

Two demographic characteristics are included in the analysis: the proportion of community population who are nonwhite and the proportion of the population that is 65 or older. Both variables are expected to be positively related to community poverty rates.

Changes in Community Characteristics

Before examining changes in the relationships between poverty rates and other community characteristics, it is informative to look at how the charac-

teristics have changed since 1960. Table 9.1 presents the means of poverty rates and other community characteristics by region and year. Turning first to average poverty rates by region, the 1980 poverty rates in both southern and nonsouthern communities were, on average, half of what they were in 1960. Moreover, the difference between the 1980 poverty rates of southern and nonsouthern communities is much smaller than the 1960 difference, although the former is statistically significant. Differences between means listed in this and subsequent tables were evaluated for statistical significance with procedures outlined by Hays (1973). The procedures use a t-test of a difference, and incorporate information about the cell size and variance of each sample mean.

By contrast, the regional difference in the percentage employed in extractive industries increased between 1960 and 1980. While the 1980 percentages are lower in both regions, the decline in extractive employment was more pronounced among southern communities than among nonsouthern communities. Indeed, the percentage employed in extractive industries in southern communities declined by almost two-thirds between 1960 and 1980, compared to a decline of just over one-third among nonsouthern communities. As a result, in 1980 the percentage employed in extractive industries in southern communities is about one-half the proportion of nonsouthern communities, whereas in 1960 they were roughly equal. This reflects the massive exodus of southerners from agriculture and other extractive industries in recent decades (Fite 1981).

The trends in the proportions employed in durable and nondurable manufacturing suggest that rural industrialization was mainly a phenomenon of the 1960s. Southern and nonsouthern communities experienced parallel trends in the proportions employed in durable manufacturing, with there being a slight increase between 1960 and 1970 but little change during the 1970s. Moreover, while southern communities have a higher percentage employed in durable manufacturing than nonsouthern communities, the regional difference is not significant in any of the three years. There is a regional difference in the trends for the percentage employed in nondurable manufacturing. Nonsouthern communities experienced a steady decline in the relative importance of nondurable manufacturing, while southern communities had a short lived increase between 1960 and 1970, followed by a decline in 1980 back to the 1960 level. To the extent, therefore, that rural industrialization during the 1960s involved labor intensive industries, it was more likely to occur in the South. This can be interpreted as support for Hansen's (1979) argument that much of the rural industrialization that occurred in the South involved industries in search of cheap labor.

With regard to labor force participation rates, southern and nonsouthern communities have been strikingly similar in the trends of both men's and women's participation rates as well as in the levels of their participation. Approximately 70 percent of men in nonmetropolitan communities in both regions were participating in the labor force throughout the period. Women's participation in the labor force increased substantially, however. Their participation rates increased from less than 30 percent in 1960 to well over 40 percent by 1980. Although changes in women's labor force participation rates

signal a profound change in women's economic roles in nonmetropolitan communities (Brown and O'Leary 1979), the fact that changes are practically identical in southern and nonsouthern communities implies that the convergence of regional poverty rates is not due to greater participation of southern women in their local labor force.

The convergence of poverty rates may be partially due to the greater increase of southerners' education levels, however. While education levels increased in both regions between 1960 and 1980, the increase was greater among southern communities. Consequently, the regional difference in median years of education declined from 1.31 years in 1960 to only .83 years in 1980.

The major implication of the demographic characteristics is that the persistence of a regional difference in poverty rates can be partially explained by the continued concentration of nonwhites in southern nonmetropolitan communities. Although there has been a slight convergence in the proportion of nonwhites in a community, the 1980 average proportion in southern communities is still more than three times the average in nonsouthern communities. Finally, both regions experienced gradual increases in the proportion of elderly residents in their nonmetropolitan communities, and practically at the same level. The last finding is somewhat surprising, since there has been much discussion in the media about the migration of the elderly to southern retirement communities (Voss and Fuguitt 1979).

While it is informative to examine trends in community characteristics, it also is important to investigate the relationships between poverty rates and community characteristics. Emphasis is on how these relationships compare across regions and the extent to which they have changed over time. The analysis is organized by the relationship of poverty rates to industry characteristics and labor force characteristics. Analysis of the relationships between poverty rates and demographic characteristics failed to find any significant contrasts either across region or between years, and thus will not be reported here.

Industry Characteristics and Poverty

Historically, community poverty rates have been strongly related to the proportion of residents employed in agriculture and other extractive industries. There are two characteristics of agricultural production that seem to have accounted for this relationship: (1) the seasonal demand for labor (whether it was the labor of farmers themselves or of hired hands) and (2) the limited skills required of farm laborers, who therefore had limited bargaining power for demanding higher earnings.

Changes in the organization of agricultural production since World War II have eroded the significance of both characteristics. The increased capital intensity of agricultural production has diminished the demand for agricultural labor on most farms. Moreover, the sharp increase in off farm work among farm families has enabled them to add considerably to their farm income. In fact, by

the late 1970s, average off farm income exceeded farm income among American farmers (see Fite 1981) for a more detailed discussion of these changes from a historical perspective). An implication of these findings is that by 1980 dependence on extractive employment should not be as strongly related to poverty rates among nonmetropolitan communities as was true in the early postwar period.

As noted above, previous research has found that industries in the other sectors have contrasting relationships with community poverty rates. Based on Morissey's (1985) research, one would expect the proportion employed in durable manufacturing to be inversely related to community poverty rates, while the proportion employed in nondurable manufacturing should be positively related to poverty rates. The latter relationship should be especially strong in the South, where nondurable manufacturers have a long history of employing workers at low wages (Marshall 1967; Hansen 1979).

The data presented in Table 9.2 are organized to reflect these expectations about the relationship between poverty rates and industry characteristics. In addition to communities being classified by the percentage employed in different types of industries, they are, in turn, cross classified by region and year. Thus, it is possible to analyze regional contrasts in the relationships as well as the extent to which they have changed over time.

There is clear evidence of the relationship between dependence on extractive employment and poverty rates weakening among southern communities. For example, the average poverty rate for southern communities with less than 5 percent of their workforce employed in extractive industries in 1960 is 26.41 percent, compared to 51.75 percent in those with more than 25 percent extractive employment. By contrast, in 1970 the difference between the same industry categories had declined to about 11 percent.

Actually, the mass exodus of southerners from employment in extractive industries alluded to above creates a problem of statistical reliability, for there are only seven southern communities in the sample with over 25 percent of their residents employed in extractive industries in 1970. Moreover, by 1980, there are only 3 communities in this category. However, the same pattern holds even if the comparison is made between communities with less than 5 percent employed in extractive industries and those that had between 10 and 25 percent. For this comparison, the difference declines from approximately 13 percent in 1960 to 10 percent in 1970, and to 4 percent in 1980. Clearly, then, dependence on extractive employment has become less strongly related to poverty rates in southern communities.

For nonsouthern communities, the picture is more complex. The difference in the average poverty rates of the lowest and highest categories of extractive employment declines from almost 11 percent in 1960 to only 5 percent in 1970, but then it increases to 6 percent in 1980. There is still some evidence of the relationship weakening, as witnessed by the minimal differences among the 1980 poverty rates of communities in the first three categories of extractive employment. Nonetheless, it appears that communities with a relatively high dependence on extractive employment (that is, 25 percent or more of their

workforce employed in extractive industries) remain distinctive in the high incidence of poverty among their residents.

Turning to the relationship between poverty rates and employment in durable manufacturing, there is an interesting regional contrast in the relationship. Among southern communities, the basic pattern across the years studied suggests that communities with a very small proportion of their labor forces employed in durable manufacturing (less than 10 percent) have lower poverty rates than those that are more dependent on durable manufacturing. Again, though, the cell sizes of the less than 10 percent category in 1970 and 1980 are sufficiently small to warrant the exercise of caution in drawing a definite conclusion.

The pattern among nonsouthern communities makes a sharp contrast with the one just discussed. In these communities, the higher the proportion employed in durable manufacturing, the lower the poverty rates. Moreover, the relationship seems to hold in the whole 1960 to 1980 period. The implication, therefore, is that reliance on durable manufacturing employment does contribute to reductions in poverty rates among nonsouthern communities. In southern communities, however, the effect may be just the opposite.

A similar pattern holds for the relationship between a community's dependence on nondurable manufacturing and its incidence of poverty, although the relationship is quite weak in both regions. In the South, it actually is a curvilinear relationship in 1960 and 1970, in that communities with between 5 and 15 percent of their labor force employed in nondurable manufacturing averaged higher poverty rates than those with either a lower or higher percentage. By 1980, southern communities in the over 15 percent category had the highest incidence of poverty; but again, the differences were not substantial. Among nonsouthern communities, the pattern was essentially the same as for durable manufacturing, both in terms of the rank order of average poverty rates and of the small differences between the averages of different categories.

Labor Force Characteristics and Poverty

The relationships between labor force characteristics and poverty rates are more complex than the trends of individual characteristics suggest. As the poverty rates presented in Table 9.3 indicate, there are important regional contrasts as well as changes over time in these relationships. For instance, male labor force participation rate is more strongly related to poverty in southern communities than in nonsouthern communities. This was especially true in 1960, when the average poverty rate of southern communities with 75 percent or fewer of the adult males participating in the labor force was 46.28 percent, 17 percent higher than the average among those with higher participation rates; by contrast, there was only a 4 percent difference among nonsouthern communities. Even though the difference declined considerably for southern communities by 1980, the 7 to 8 percent difference was still more than twice the difference for nonsouthern communities.

Clearly, then, men's labor force participation is a more important determinant of community poverty rates in the nonmetropolitan South than in other parts of the country. This does not seem to be the case for women's labor force participation, however. Women's participation in the labor force contributes to reductions in the poverty levels of both southern and nonsouthern communities. In each year, the difference in average poverty rates among categories of female labor force participation rate is roughly the same across regions. For example, in 1960 the average poverty rate among southern communities with fewer than 30 percent of their adult females participating in the labor force was 45.35 percent, which was 7 percent more than among those with between 30 and 40 percent participating. The same difference holds for this comparison among nonsouthern communities. Similarly, southern and nonsouthern communities with over 40 percent of their women in the labor force in 1980 both had poverty rates about 4 percent lower than those with between 30 and 40 percent participating.

There are some regional differences in the relationship between poverty rates and educational level. It seems that, in 1960 and 1970, southern communities with very low education levels had a particularly high incidence of poverty. The 46.11 percent poverty rate for southern communities with a median education of less than nine years in 1960 is 20 percent higher than the average among communities with a median education between 9 and 11 years. By contrast, the difference for nonsouthern communities is less than 11 percent. Moreover, while the same difference had declined to 12 percent among southern communities by 1970, it was only 6 percent among nonsouthern communities.

It seems, however, that this regional contrast is not the same for higher levels of education. For example, the poverty difference between the middle and highest education levels in 1970 is approximately 5 percent for both southern and nonsouthern communities. Unfortunately, the 1980 distribution among nonsouthern communities is so highly skewed toward higher education levels that it is not possible to compare average poverty rates within different education levels. It is important to note, though, that the average poverty rate among southern communities with the highest education levels is closer to the average for nonsouthern communities in this educational category than it is to the 9 to 11 years category among other southern communities. Moreover, the 3 percent regional difference is the smallest difference across region for the education variable. Taken together, these comparisons provide ample evidence that regional convergence of educational levels has been a major reason for the convergence of the poverty rates of southern and nonsouthern communities.

Conclusion

Nonmetropolitan communities have experienced considerable economic development since 1960. In many ways, this development has followed the classic model of economic development, particularly in the South. There has been a substantial weakening of nonmetropolitan communities' dependence on

agriculture, coupled with a significant increase in their residents' education levels. While these changes have occurred throughout nonmetropolitan America, their pace has been faster among southern nonmetropolitan communities. Moreover, these changes have had a significant impact on the reduction of poverty in the nonmetropolitan South.

There are, however, aspects of the development of southern nonmetropolitan communities that have not conformed to the classic model of development. Specifically, development of a manufacturing base, whether durable or nondurable manufacturing, has not contributed to lower poverty rates for southern nonmetropolitan communities. Indeed, in 1980, dependence on nondurable manufacturing employment actually was associated with higher poverty rates in southern communities, while employment in durable manufacturing was not related. This is in sharp contrast with nonmetropolitan communities outside the South, where reliance on either type of manufacturing employment contributed to lower poverty rates.

The fact that growth in manufacturing employment has not contributed to lower poverty rates among southern nonmetropolitan communities implies that many manufacturers have viewed the South as a source of cheap, largely unskilled, labor. There has been some historical basis for the view of southern labor being relatively unskilled, as indicated by the lower education levels of southern residents. The regional convergence of education levels in recent years suggests that the traditional view of southern labor needs to be revised. Furthermore, because the difference between the poverty rates of southern and nonsouthern communities with high education levels was minimal in 1980, this suggests that southern nonmetropolitan communities should emphasize raising their residents' education levels as part of their economic development efforts.

The general policy implication of this study is that further progress in the alleviation of southern rural poverty will require emphasis on enhancing the human resources of the nonmetropolitan South. Continued improvement of southerners' education levels should therefore be a primary policy goal. If this policy is coupled with efforts to provide jobs suitable to higher education levels, then it would be reasonable to expect further convergence between the poverty rates of the nonmetropolitan South and the rest of nonmetropolitan America.

Chapter 10
Employment Growth and Income Inequality

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Rural development policies have encouraged the growth of manufacturing employment in rural areas in order to improve the standard of living among rural residents. There frequently is little concern for the type of industry in which employment growth occurs. This is unfortunate, for although employment growth certainly is preferable to decline, there is considerable diversity among industries in the wages paid and the types of jobs provided. The significance of this diversity among industries is that the well-being of rural residents can be differentially affected by employment growth in different types of industry.

This chapter addresses the issue of how the benefits of economic growth have been distributed within nonmetropolitan communities in the United States. A model of industrial structure is developed that accounts for the differential effects of employment growth on the distribution of income in nonmetropolitan communities. A key element of the model is the contrast in the kinds of occupations in different types of industries. Specifically, growth in industries with high proportions of skilled manual and clerical occupations is most likely to result in a more equal distribution of income.

Occupations, Labor Markets, and Income Inequality

Most people define their jobs according to occupational titles. One is employed as either a carpenter, a clerk, a manager, a farmer, or in some other occupation. While many people switch from one occupation to another during their careers, usually this is not the case. There are certain skills required to perform occupational tasks that often are not immediately transferable to other occupations. Occupations actually vary by the extent to which the skills associated with them are transferable to other occupations. Put in terms of research on occupational mobility, some occupations are relatively "open" while others are relatively "closed." An open occupation implies that people can "move" into it from other occupations; or conversely, that they can move out of the occupation into others. A closed occupation would of course imply the opposite. Mobility research has found that clerical occupations and skilled

manual occupations of crafts and operative workers are the most open by this definition (Fetherman and Hauser 1978). The implication for employment growth is that expansion of skilled manual and clerical occupations would seem preferable, since a wider range of people should be able to move into these jobs than if the growth involved expansion of more closed occupations.

Expansion of skilled manual and clerical occupations should also contribute to a more equal distribution of income in a community. For not only are the mobility patterns of these occupations more open, they have more equal distributions of earnings than occupational groups (Miller 1963). Therefore, as the proportion of skilled manuals and clericals increases, the relative intragroup equality in their earnings should contribute to greater equality in the overall distribution of earnings.

Thus, if the concern is with providing employment growth that has the most equitable impact on the distribution of income, growth in industries with large proportions of skilled manual and clerical occupations would seem preferable. An important question, then, is what types of industries are most likely to employ skilled manual and clerical occupations? A model of industrial structure that differentiates industries according to their propensity to employ these occupational groups helps to answer this question.

Market Constraints and Occupational Structures of Industries

Most studies that distinguish among different types of industries contrast growth in manufacturing employment with growth in other types of employment. There is considerable diversity among manufacturing industries in the types of jobs provided and wages paid. Indeed, the similarity between the occupational structure and average earnings of a manufacturing and a nonmanufacturing industry is often greater than between two manufacturing industries. For example, the proportion of skilled workers and average earnings in the automobile industry are more similar to the railroad industry (a service industry) than to the textile industry (another manufacturing industry). It would be useful, therefore, to develop a model of industrial structure that accounts for the differential effects of employment growth on occupational structure and income distribution of communities that is more systematic than a simple contrast between manufacturing and nonmanufacturing industries.

James O'Connor (1973) has proposed a model of U.S. industries that does differentiate industries in a way more relevant to our concerns than a contrast of manufacturing industries with service and/or agricultural industries. Three industrial sectors—monopoly (or concentrated), competitive, and state—are distinguished by the nature of market relations among firms in a particular industry. O'Connor argues that a firm's relations with its competitors place market constraints, or limits and possibilities, on firm behavior.

In the concentrated sector, an industry's product market is organized around the constraints of a few firms having oligopolistic power. Production within this

sector is large scale and capital intensive. Profits and wages tend to be high. The automotive industry is in this sector, as are the railroad and chemical industries. By contrast, industries in the competitive sector have a highly competitive product market. Production is small scale and labor intensive with profits and wages tending to be low. Examples of competitive sector industries include agriculture, textile manufacturing, and retail sales. Finally, the state sector is constrained by the government function fulfilled by the product or service of an industry. Production tends to be dependent on planning, research, and development. Profits and wages are fairly high, although usually not as high as in the concentrated sector. Included in the state sector are government agencies, public utilities, schools, and the defense industry.

The different market constraints placed on firms in the three industrial sectors result in contrasting occupational structures among them. Concentrated sector firms tend to employ a relatively high proportion of workers in skilled manual and clerical occupations, due to the nature of production in concentrated industries. Skilled manuals are prevalent because of the capital intensity of production, which requires machine tending more than physical labor. Similarly, concentrated sector firms are characterized by fairly large bureaucracies, resulting in a sizeable clerical staff.

In sharp contrast with the concentrated sector, the labor intensity of production within the competitive sector calls for large numbers of laborers and other low skilled manuals (such as personal and service workers). Conversely, there is little demand for skilled manuals or clericals (the latter due to the "leanness" of competitive firms' bureaucracies).

The market constraints of state sector firms and agencies also have important consequences for occupational structure within this sector. The dependence on planning, research, and development results in a large clerical and managerial staff, plus a disproportionate share of specially trained professionals. Skilled manuals, on the other hand, constitute a very small proportion of the state sector workforce, since production is oriented more toward information processing than producing material goods. The defense industry is an important exception, although even in this case the proportion of engineers, clericals, and others employed in planning and research and development tasks is greater than in most goods producing industries.

Clearly, the three industrial sectors have contrasting occupational structures. The contrasts can be traced to the different market constraints faced by firms operating in each sector. Differences among the three industrial sectors occupational structures lead to differential effects of employment growth on community income distributions.

Differential Effects of Employment Growth

In order to demonstrate the usefulness of O'Connor's model of industrial sectors, we estimated the effects of growth in the three industrial sectors on income distributions of nonmetropolitan communities. The National County

Sample was used for the analysis, which is a representative sample of counties in the United States with nonmetropolitan status in 1950. Since the concern is with how benefits of economic growth are distributed, analysis is restricted to those counties that experienced employment growth between 1960 and 1970. This restriction reduced the sample from its original size of 275 counties to 179.

The focus is on the 1960s because this was the decade in which rural industrialization was most pronounced (Summers et al. 1976). By 1970, 17 of the 179 counties had achieved metropolitan status. They are retained in the analysis because the concern is with the effects of employment growth on the income distributions of communities that began the period as nonmetropolitan. Only analyzing counties that remained nonmetropolitan would have biased the analysis against those that experienced substantial growth.

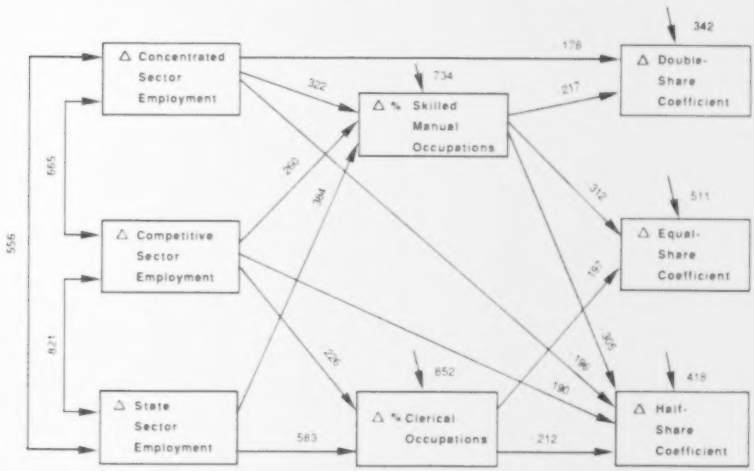
Variables in the analysis are all derived from 1960 and 1970 Census of Population data. The industry variables are the changes in number of county residents employed in each sector. The occupation variables are measured as changes in the percentage of the civilian labor force who work in either skilled manual or clerical occupations. Finally, changes in income distribution are measured as changes in the proportions of families receiving incomes below the mean and one half the mean, plus above twice the mean. These measures are called the equal share, half share, and double share coefficients, respectively. They are especially appropriate for assessing the differential effects of employment growth on community income distributions, since they measure changes in the shares of income received by families at different points in the distribution (Bloomquist and Summers 1982).

Results of the analysis are reported in Figure 10.1. The direction of the arrows indicates that changes in income distribution are dependent on changes in a community's occupational structure as well as on the amount of growth in each of the three sectors. Changes in the occupational structure are, in turn, specified as dependent on changes in the industry variables. The coefficients listed in the model indicate strength of each effect. The farther each coefficient is from zero, the stronger the effect (with a negative sign indicating that the effect is an inverse, or negative, effect). Since income distribution variables are measures of inequality, an inverse effect means that the independent variable contributes to greater equality.

The results demonstrate clearly that the effects of employment growth on community income distributions differ considerably across industrial sectors. Moreover, the key to differential effects is the contrasts in the types of occupations that the different industrial sectors employ. Growth in concentrated sector employment contributes to an increased proportion of skilled manual occupations in a community, which, in turn, contributes to lesser inequality in income distribution. By contrast, growth in competitive sector employment contributes indirectly to greater inequality through its effect of lowering the proportions of both skilled manual and clerical occupations. Finally, the effects of growth in state sector employment on the occupational structure seem to cancel each other out, contributing to lower proportions of skilled manuals but a higher proportion of clericals.

It is also important that an increase in the proportion of skilled manuals has a greater effect on equalizing community income distributions than an increase in the proportion of clericals does. The skilled manual occupation variable has inverse effects on all three measures of inequality, while change in the percentage of clerical occupations only affects changes in the equal share and half share coefficients. Furthermore, the effects of change in the percentage of skilled manual occupations on the equal share and half share coefficients are stronger than the effects of the clerical occupation variable.

Figure 10.1. Path Diagram of Proposed Model of Effects of Changes in Industrial Sector Employment on Measures of Income Distribution for Counties with Growth in Total Employment



SOURCE: Bloomquist and Summers 1982.

Conclusions

Employment growth has differential effects on community income distributions, and these differential effects are largely due to contrasts in the kinds of occupations in the three industrial sectors. The implications of these findings is that growth in concentrated sector employment is most beneficial for income equality. Growth in this sector's employment has both direct and indirect effects on equalizing the distribution of family incomes in nonmetropolitan communities.

To the extent possible, therefore, economic development projects in nonmetropolitan communities should try to attract concentrated sector firms. The opposite is true for competitive sector firms, since growth in their employment seems to contribute to greater inequality. The effect of growth in state sector employment on community income distributions is negligible, due to its contradictory effects on occupational structures.

With regard to possible training programs, providing training that would prepare residents for employment as skilled manuals would seem to be the most beneficial. Skilled manuals not only have the skill transferability referred to above, but this analysis indicates a substantial equalizing effect on the distribution of income. This effect would be optimized if a training program were implemented in conjunction with a project that increases concentrated sector employment. In that way, changes in the industrial and occupational structure would complement each other.

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